

Code of Maryland Regulations

Title 26: Department of the Environment, Subtitle 08: Water Pollution, Chapter 2: Water Quality

Several amendments to COMAR §26.08.02 were made as a result of Maryland's triennial review of water quality standards as required by section 303(c)(1) of the Clean Water Act, 33 U.S.C. §1313(c).

EPA has **approved** the following changes:

Section .03 Surface Water Criteria

- ♦ Punctuation deleted in 2(a)-(e)
- ♦ Recodified 2(a)-(f) to 2(a)-(e)
- ♦ Language deleted in 2(d)
- ♦ Language added in 2(c)

Section .03-2 Numerical Criteria for Toxic Substances in Surface Waters

- ♦ Language deleted from C(1)(a)-(b) and C(2)
- ♦ Language added in C(1)(b) and C(2)
- ♦ Numerical criteria for Inorganic substances were revised in G., Table 1
- ♦ Numerical criteria for Organic substances were revised in G., Table 2
- ♦ Numerical criteria for Polyaromatic Hydrocarbon and Phthalate substances were revised in G., Table 3
- ♦ Numerical criteria for Pesticides and Chlorinated Compounds substances were revised in G., Table 4

Section .03-3 Water Quality Criteria Specific to Designated Uses

- ♦ Language added in C(2) regarding the criteria for the classification of Shellfish Harvesting waters (Use II)
- ♦ Recodified C(1)-(6) to C(1)-(8)
- ♦ Language added for Color [A(10)], and measurement methodology.
- ♦ Language added in C(1)
- ♦ Language added in C(2) for "Classification of Use II Waters for Harvesting"
- ♦ Language added in C(7) for Color
- ♦ Recodified C(2)-(6) to C(3)-(8)
- ♦ Language change from "trout" to "Salmonid" in D
- ♦ Language added in D(6) for Color
- ♦ Language change in E
- ♦ Language change from "trout" to "Salmonid" in F
- ♦ Language added in F(6) for Color
- ♦ Recodified F(1)-(6) to F(1)-(7)

Section .03-4 Biological Quality Criteria

- ♦ Entirely new section in the regulation

Section .04-1 Outstanding National Resource Water

- ♦ Recodified existing regulation .04-1 to be regulation .04-2
- ♦ New section added to the regulation

#### Section .05 Surface Water Mixing Zones

- ♦ Language added in A(12) giving additional information on mixing zone policy
- ♦ Recodified A(1)-(11) to A(1)-(12)

#### Section .08 Stream Segment Definitions

- ♦ Redesignated Roaring Run and Rock Run rivers from Use I to Use III waters
- ♦ Recodified J(3)(a)-(h) to J(3)(a)-(j)

No Action was taken on the following sections:

#### Section .03-3 Water Quality Criteria Specific to Designated Uses.

- ♦ Language deleted in A(1)(a)-(b) regarding fecal coliform bacteria criteria
- ♦ Language added in A(1)-(4) regarding E.coli and Enterococci bacteria criteria
- ♦ Recodified A(1)-(6) to A(1)-(11)

# Maryland

## Title 26 Department of the Environment

### Subtitle 08 Water Pollution

26.08.02.00. Title 26 DEPARTMENT OF THE ENVIRONMENT Subtitle 08 WATER POLLUTION Chapter 02 Water Quality Authority: Environment Article, §9-303.1, 9-313—9-316, 9-319, 9-320—9-325, 9-327, and 9-328, Annotated Code of Maryland

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26.08.02.01. 01 Surface Water Quality Protection.. A. Purpose. To protect surface water quality, this State shall adopt water quality standards to:. 1) Protect public health or welfare;. 2) Enhance the quality of water;. 3) Protect aquatic resources; and. 4) Serve the purposes of the Federal Act.. B. Water Quality Standards.. 1) The surface water quality standards consist of two parts:. a) Designated uses of the waters of this State; and.

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26.08.02.02. 02 Designated Uses.. A. General.. 1) The determination of the designated use of a water body shall include consideration of the following factors:a) Existing conditions; and. b) Potential uses which may be made possible by anticipated improvements in water quality.. 2) The actual uses of surface water are not limited to those designated in this chapter. Any reasonable and lawful use is permitted provided that the surface water quality is not adversely affected by the use.

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26.08.02.02-1. 02-1 Support of Estuarine and Marine Aquatic Life and Shellfish Harvesting.. A. Use II includes the subcategories of designated uses described in this section.. B. Shellfish Harvesting. This subcategory includes waters where there are:. 1) Actual or potential areas for the harvesting of oysters, soft-shell clams, hard-shell clams, or brackish water clams; or2) Actual or potential areas suitable for the propagation or storage of oysters, hard-shell clams, soft-shell clams, and brackish water clams.

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26.08.02.03. 03 Surface Water Quality Criteria.. A. Applicability.. 1) Surface water quality criteria shall apply:. a) In fresh water streams and rivers:. i) For toxic substances, under the conditions stipulated in Regulations .03-2A and .05A, and. ii) Under design stream flow for all other substances;. b) In tidal waters:. ii) Under average tidal conditions during design stream flows for all other substances;. c) Outside of any mixing zones which may be designated by the Department..

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26.08.02.03-1. 03-1 Toxic Substance Water Quality Criteria for Surface Waters.. A. General.. 1) Numerical toxic substance criteria for ambient surface waters are established to protect human health or aquatic life.2) Four types of numerical toxic substance criteria shall be adopted. The purpose of these criteria is to protect:a) Human health through ingestion of public water supplies;. b) The wholesomeness of fish for human consumption;.

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26.08.02.03-2. 03-2 Numerical Criteria for Toxic Substances in Surface Waters.. A. Numerical toxic substance criteria shall be applied:. 1) In intermittent streams, at the end of the discharge pipe; and. 2) In all other water bodies, at the edge of the mixing zones determined in accordance with Regulation .05C—E of this chapter.B. Acceptable laboratory methods for the detection and measurement of toxic substances shall be specified by the Department.C. Site-specific numerica

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26.08.02.03-3. 03-3 Water Quality Criteria Specific to Designated Uses.. A. Criteria for Use I Waters—Water Contact Recreation and Protection of Nontidal Warmwater Aquatic Life.1) Bacteriological.. a) Table 1. Bacteria Indicator Criteria for Frequency of Use.. Steady State Geometric Mean Indicator Density. Single Sample Maximum Allowable Density. Indicator. All Areas. Frequent Full Body Contact Recreation Upper 75% CL). Moderately Frequent Full Body Contact Recreation Upper 82% CL).

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26.08.02.03-4. 03-4 Biological Water Quality Criteria.. A. Quantitative assessments of biological communities in streams (biological criteria) may be used separately or in conjunction with the chemical and physical criteria promulgated in this chapter to assess whether water quality is consistent with the purposes and uses in Regulations .01 and .02 of this chapter.B. The results of the quantitative assessments of biological communities shall be used for purposes of water quality assessme

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26.08.02.04. 04 Anti-Degradation Policy.. A. Waters of this State shall be protected and maintained for existing uses and the basic uses of water contact recreation, fishing, protection of aquatic life and wildlife, and agricultural and industrial water supply as identified in Use I.B. Certain waters of this State possess an existing quality that is better than the water quality standards established for them. The quality of these waters shall be maintained unless:1) The Department determi

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26.08.02.04-1. 04-1 Antidegradation Policy Implementation Procedures.. A. Where water quality is better than the minimum requirements specified by the water quality standards, that water quality shall be maintained. These waters are listed by the Department as Tier II waters. An antidegradation review of new or proposed amendments to water and sewer plans (county plans) and discharge permits is required to assure consistency with antidegradation requirements.B. General. An applicant

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26.08.02.04-2. 04-2 Outstanding National Resource Water.. A. Scope. There are many tools available to protect special resources including the Smart Growth Initiative, Rural Legacy Program, local comprehensive plans, Program Open Space, and others that work through the private sector and nongovernment organizations. This regulation applies the Tier III ONRW designation only where the most stringent protection is necessary and appropriate to protect and maintain existing exception

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26.08.02.05. 05 Surface Water Mixing Zones.. A. General.. 1) Effluents may be mixed with surface waters in the mixing zone.. 2) Effluents may not be treated in the mixing zone.. 3) Lethality to passing organisms may not occur in any mixing zone.. 4) Surface waters outside the mixing zones shall meet the water quality criteria for

that particular body of water.5) Mixing zones may be designated by the Department provided that the following requirements are met outside the mixing zones:

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26.08.02.05-1. 05-1 Intermittent Streams.. A. Discharges to intermittent streams are not permitted when feasible alternatives are available.. B. Effluent limitations for discharges to specific intermittent streams may be determined by the Department on a case-by-case basis.C. Effluent limitations may not be less stringent than:. 1) The minimum national effluent guidelines established under the Federal Act;.

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26.08.02.06. 06 Review and Revision.. A. Procedure. Under State law and § 303(c) of the Federal Act, the Department shall review and revise its water quality standards as appropriate. Changes shall be transmitted to the EPA.B. Hearing Transcripts. Transcripts of public hearings on proposed standards revisions shall be available for public inspection in the main office of the Department. Transcripts shall be furnished to the EPA upon request.

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26.08.02.07. 07 Surface Water Use Designation.. A. All surface waters of this State shall be protected for water contact recreation, fishing, and protection of aquatic life and wildlife.B. For interstate waters, these classifications apply only to those waters within this State.. C. A stream segment is a distinct portion of a sub-basin.. D. If the stream segment limits are specified as beginning at a specific point, streams terminating downstream of this point are not included in the s

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26.08.02.08. 08 Stream Segment Designations.. A. General.. 1) If using the Maryland Coordinate Grid System (MCGS) (Easting/Northing) the limits indicate the most downstream point or line for the segment. The North American Datum (NAD) for the MCGS is NAD27.2) Tidal Segmentation Rationale. Water quality standards for the Chesapeake Bay and its tidal tributaries will be assessed on a "Bay Segment" scale. The segmentation is based on decisions made by the Chesapeake Bay Program in

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26.08.02.09. 09 Ground Water Quality Standards.. A. Discharge Approval Required.. 1) Any discharge or disposal of waters or wastewaters into the underground waters of the State requires the approval of the Department. The approval, if granted, will contain limitations and requirements deemed necessary by the Department to protect the public health and welfare and to prevent pollution of ground and surface waters.2) A separate State discharge permit is required for:. a) Wastewater effluents d

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26.08.02.10. 10 Water Quality Certification.. A. General.. 1) The Federal Act prohibits the issuance of a federal permit or license to conduct any activity which may result in any discharge to navigable waters unless the applicant provides a certification from this State that the activity does not violate State water quality standards or limitations. This regulation establishes the procedures under which this certification will be issued.2) Discharges permitted by the Department under th

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26.08.02.11. 11 General Water Quality Certifications.. A. General Water Quality Certification (GWQC) for Marsh Creation Projects.. 1) Scope of Activity.. a) Definition. Marsh creation projects are defined as the vegetative stabilization of tidal shorelines and nontidal stream banks that are subject to erosion.b) Exception. The projects certified by this GWQC do not include marshes created for storm water manc) Marsh Creation. The creation of marshes includes the following activities:.

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26.08.02.12. 12 General Water Quality Certification (GWQC) for the Construction of Bulkheads.. A. Scope of Activity.. 1) Definition. "Bulkheads" means the structural stabilization of tidal and nontidal shorelines that are subject to erosion.2) Exceptions.. a) Bulkheads authorized by this GWQC do not include structures which allow passage of a discharge pipe of any kind, such as storm water outfalls and those outfalls regulated under State discharge permits.

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26.08.02.13. 13 General Water Quality Certification (GWQC) for the Placement of Riprap for Shore Protection.. A. Scope of Activity.. 1) Definition. Riprap revetments are defined as: a) A facing of loose stone, brick, or masonry placed for the purpose of stabilizing tidal and nontidal shorelines that are subject to erosion; andb) Being constructed with materials of suitable size and weight to prevent their transport into the waterway.2) Exceptions.. a) Riprap revetments auth

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26.08.02.9999. Administrative History Effective date: September 1, 1974 (1:1 Md. R. 33). COMAR 10.50.01.02, .04, and .03 recodified to COMAR 26.08.02.01, .03, and.04, respectively. Stream Segment Classification Tables codified as Regulation .02. Regulation .01 amended effective April 21, 1978 (5:8 Md. R. 593) July 11, 1980 (7:14 Md. R. 1348) December 3, 1984 (11:24 Md. R. 2070)Regulation .01D amended effective May 24, 1982 (9:10 Md. R. 1022). Regulation .01I amended effective June 6, 1983 (10

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# **Title 26 DEPARTMENT OF THE ENVIRONMENT**

## **Subtitle 08 WATER POLLUTION**

### **Chapter 02 Water Quality**

**Authority:** Environment Article, §§9-303.1, 9-313—9-316, 9-319, 9-320—9-325, 9-327, and 9-328,  
Annotated Code of Maryland

#### **26.08.02.01 Surface Water Quality Protection.**

A. Purpose. To protect surface water quality, this State shall adopt water quality standards to:

- (1) Protect public health or welfare;
- (2) Enhance the quality of water;
- (3) Protect aquatic resources; and
- (4) Serve the purposes of the Federal Act.

B. Water Quality Standards.

(1) The surface water quality standards consist of two parts:

- (a) Designated uses of the waters of this State; and
- (b) Water quality criteria to protect the designated uses.

(2) Water quality standards shall provide water quality for the designated uses of:

- (a) Water contact recreation;
- (b) Fishing;
- (c) Propagation of fish, other aquatic life, and wildlife; and
- (d) Agricultural and industrial water supply.

(3) Waters of this State shall be protected for the basic designated uses in Regulation .02A.

(4) Water quality standards shall consider the use and value of public water supplies.

(5) Regulations .02—.08 of this chapter implement this State's water quality standards by:

- (a) Defining and establishing specific designated uses for the surface waters of this State;
- (b) Assigning a designated use to all surface waters;
- (c) Establishing water quality criteria for each designated use;

- (d) Defining this State's antidegradation policy;
- (e) Defining this State's criteria for mixing zones; and
- (f) Defining other water quality protective policies.

## **26.08.02.02 Designated Uses.**

### **A. General.**

(1) The determination of the designated use of a water body shall include consideration of the following factors:

- (a) Existing conditions; and
- (b) Potential uses which may be made possible by anticipated improvements in water quality.

(2) The actual uses of surface water are not limited to those designated in this chapter. Any reasonable and lawful use is permitted provided that the surface water quality is not adversely affected by the use.

### **B. Specific Designated Uses.**

(1) Use I: Water Contact Recreation, and Protection of Nontidal Warmwater Aquatic Life. This use designation includes waters that are suitable for:

- (a) Water contact sports;
- (b) Play and leisure time activities where individuals may come in direct contact with the surface water;
- (c) Fishing;
- (d) The growth and propagation of fish (other than trout), other aquatic life, and wildlife;
- (e) Agricultural water supply; and
- (f) Industrial water supply.

(2) Use I-P: Water Contact Recreation, Protection of Aquatic Life, and Public Water Supply. This use designation includes:

- (a) All uses identified for Use I; and
- (b) Use as a public water supply.

(3) Use II: Support of Estuarine and Marine Aquatic Life and Shellfish Harvesting. This use designation includes all applicable uses identified for Use I in:

- (a) All tidally influenced waters of the Chesapeake Bay and tributaries, the Coastal Bays, and the Atlantic Ocean to the 3-mile boundary; and
- (b) Tidally influenced waters that are or have the potential for:
  - (i) Shellfish propagation and storage, or harvest for marketing purposes; and
  - (ii) Actual or potential areas for the harvesting of oysters, soft-shell clams, hard-shell clams, and brackish water clams.

(4) Use II-P: Tidal Fresh Water Estuary. This use designation:

(a) All uses identified for Use II waters; and

(b) Use as a public water supply.

(5) Use III: Nontidal Cold Water. This use designation includes all uses identified for Use I and waters which have the potential for or are:

(a) Suitable for the growth and propagation of trout; and

(b) Capable of supporting self-sustaining trout populations and their associated food organisms.

(6) Use III-P: Nontidal Cold Water and Public Water Supply. This use designation includes:

(a) All uses identified for Use III waters; and

(b) Use as a public water supply.

(7) Use IV: Recreational Trout Waters. This use designation includes all uses identified for Use I in cold or warm waters that have the potential for or are:

(a) Capable of holding or supporting adult trout for put-and-take fishing; and

(b) Managed as a special fishery by periodic stocking and seasonal catching.

(8) Use IV-P: Recreational Trout Waters and Public Water Supply. This use designation includes:

(a) All uses identified for Use IV waters; and

(b) Use as a public water supply.

## **26.08.02.02-1 Support of Estuarine and Marine Aquatic Life and Shellfish Harvesting.**

A. Use II includes the subcategories of designated uses described in this section.

B. Shellfish Harvesting. This subcategory includes waters where there are:

(1) Actual or potential areas for the harvesting of oysters, soft-shell clams, hard-shell clams, or brackish water clams; or

(2) Actual or potential areas suitable for the propagation or storage of oysters, hard-shell clams, soft-shell clams, and brackish water clams for marketing purposes, except areas excluded by the Department.

C. Seasonal Migratory Fish Spawning and Nursery Subcategory. This subcategory includes waters of the Chesapeake Bay and its tidal tributaries that have the potential for or are supporting the survival, growth, and propagation of balanced indigenous populations of ecologically, recreationally, and commercially important anadromous, semi-anadromous and tidal-fresh resident fish species inhabiting spawning and nursery grounds from February 1 through May 31.

D. Seasonal Shallow-Water Submerged Aquatic Vegetation Subcategory. This subcategory includes:

(1) Tidal fresh waters of the Chesapeake Bay and its tidal tributaries that have the potential for or are supporting the survival, growth, and propagation of rooted, underwater bay grasses in tidally influenced waters from April 1 through October 1; and

(2) Low salinity (oligohaline and mesohaline) waters of the Chesapeake Bay and its tidal tributaries that have the potential for or are supporting the survival, growth, and propagation of rooted, underwater bay grasses in tidally influenced waters from April 1 through October 1.

E. Open-Water Fish and Shellfish Subcategory.

(1) This subcategory includes waters of the Chesapeake Bay and its tidal tributaries that have the potential for or are supporting the survival, growth, and propagation of balanced, indigenous populations of ecologically, recreationally, and commercially important fish and shellfish species inhabiting open-water habitats.

(2) This subcategory applies from June 1 to September 30 in tidally influenced waters from the shoreline to the adjacent shoreline (and from shoreline to the opposite shoreline), and from the surface to the measured boundary of the pycnocline, if the pycnocline prevents oxygen replenishment, otherwise the subcategory is applied to from the surface to the bottom.

(3) If a pycnocline exists but other physical circulation patterns, such as the inflow of oxygen-rich oceanic bottom waters, provide oxygen replenishment to the deep waters, the open-water fish and shellfish designated use extends to the bottom.

(4) From October 1 through May 31, the boundaries of the open-water designated use include all tidally influenced waters from the shoreline measured from the shoreline to the adjacent or opposite shoreline and down to the bottom.

F. Seasonal Deep-Water Fish and Shellfish Subcategory. This subcategory includes waters of the Chesapeake Bay and its tidal tributaries that have the potential for or are supporting the survival, growth, and propagation of balanced, indigenous populations of important fish and shellfish species inhabiting deep-water habitats as described as follows:

(1) One of the following applies:

(a) From June 1 through September 30 in tidally influenced waters located between the measured depths of the upper and lower boundaries of the pycnocline, where a pycnocline is present and presents a barrier to oxygen replenishment; or

(b) From June 1 through September 30 from the upper boundary of the pycnocline down to the sediment/water interface at the bottom, where a lower boundary of the pycnocline cannot be calculated due to the depth of the water column; and

(2) From October 1 to May 31, criteria under §A(5) of this regulation apply.

G. Seasonal Deep-Channel Refuge Use.

(1) This subcategory includes waters of the Chesapeake Bay and its tidal tributaries that have the potential for or are supporting the survival of balanced, indigenous populations of ecologically important benthic infaunal and epifaunal worms and clams, which provide food for bottom-feeding fish and crabs.

(2) This subcategory applies from June 1 through September 30 in tidally influenced waters located below the measured lower boundary of the pycnocline to the bottom where a measured pycnocline is present and presents a barrier to oxygen replenishment.

(3) From October 1 to May 31, criteria under §A(5) of this regulation apply.

### **26.08.02.03 Surface Water Quality Criteria.**

A. Applicability.

(1) Surface water quality criteria shall apply:

(a) In fresh water streams and rivers:

(i) For toxic substances, under the conditions stipulated in Regulations .03-2A and .05A, and

(ii) Under design stream flow for all other substances;

(b) In tidal waters:

(i) For toxic substances, under the conditions stipulated in Regulations .03-2A and .05A, and

(ii) Under average tidal conditions during design stream flows for all other substances;

(c) Outside of any mixing zones which may be designated by the Department.

(2) If the natural water quality of a stream segment is not consistent with the criteria established for the stream then:

(a) The natural conditions do not constitute a violation of the water quality standards; and

(b) The water quality to be maintained and achieved is not required to be substantially different from that which would occur naturally.

(3) When coal remining permits are issued under §301 of the Federal Water Pollution Control Act (33 U.S.C. §1311), a variance to the specific water quality criteria for pH, iron, and manganese in the State's water quality standards may be given at the discretion of the Department for the duration of the remining activity. This variance may not be given if there is no demonstrated potential for improved water quality from the remining operation and if degradation of existing in-stream conditions is likely to occur.

B. General Water Quality Criteria. The waters of this State may not be polluted by:

(1) Substances attributable to sewage, industrial waste, or other waste that will settle to form sludge deposits that:

(a) Are unsightly, putrescent, or odorous, and create a nuisance, or

(b) Interfere directly or indirectly with designated uses;

(2) Any material, including floating debris, oil, grease, scum, sludge, and other floating materials attributable to sewage, industrial waste, or other waste in amounts sufficient to:

(a) Be unsightly;

(b) Produce taste or odor;

(c) Change the existing color to produce objectionable color for aesthetic purposes;

(d) Create a nuisance; or

(e) Interfere directly or indirectly with designated uses;

(3) High temperature or corrosive substances attributable to sewage, industrial waste, or other waste in concentrations or combinations which:

(a) Interfere directly or indirectly with designated uses, or

(b) Are harmful to human, animal, plant, or aquatic life;

(4) Acute toxicity from any discharge outside the mixing zone established under Regulation .05 of this chapter for the application of acute criteria for protection of aquatic life; and

(5) Toxic substances attributable to sewage, industrial wastes, or other wastes in concentrations outside designated mixing zones, which:

(a) Interfere directly or indirectly with designated uses, or

(b) Are harmful to human, plant, or aquatic life.

### **26.08.02.03-1 Toxic Substance Water Quality Criteria for Surface Waters.**

#### **A. General.**

(1) Numerical toxic substance criteria for ambient surface waters are established to protect human health or aquatic life.

(2) Four types of numerical toxic substance criteria shall be adopted. The purpose of these criteria is to protect:

- (a) Human health through ingestion of public water supplies;
- (b) The wholesomeness of fish for human consumption;
- (c) Fresh, estuarine, and salt water aquatic life from acute toxicity impacts; and
- (d) Fresh, estuarine, and salt water aquatic life from chronic toxicity impacts.

#### **B. Fresh Water, Estuarine, and Salt Water Boundaries.**

(1) For any toxic substance for which no estuarine criteria appear in Regulation .03-2G, Table 1, the salt water criteria apply in estuarine waters.

(2) Fresh water and estuarine or salt water boundaries begin at specific points for the purpose of applying the numerical toxic substance criteria for aquatic life protection. These points are:

(a) The stream segment and all tributaries which confluence with the stream segment upstream from the boundaries specified in § B(3) are assumed to be fresh water.

(b) Except for Sub-Basin 02-13-01-----Coastal Area, the stream segment and all tributaries which confluence with the stream segment downstream from the boundaries specified in § B(3) are assumed to be estuarine water.

(c) In Sub-Basin 02-13-01-----Coastal Area, the stream segment and all tributaries which confluence with the stream segment downstream from the boundaries specified in § B(3) are assumed to be salt water.

(d) Tributary headwaters. Since the headwaters of some tributaries to stream segments designated as estuarine or salt water may be fresh, the Department may:

(i) Require the discharger to provide site specific salinity measurements or accept site specific salinity measurements provided voluntarily by the applicant; and

(ii) Review the information provided in § B(2)(d)(i), and determine that the area is more appropriately designated as fresh water.

(3) For the purpose of applying numerical toxic substance criteria, the following are designated as the boundaries between fresh waters and estuarine or salt waters:

(a) Lower Susquehanna River Area (Sub-Basin 02-12-02)-----All waters are fresh waters.

(b) Coastal Area (Sub-Basin 02-13-01) boundaries are:

(i) Bishopville Prong-----State boat ramp at Daye Road;

(ii) Birch Branch-----Route 113;

- (iii) Middle Branch-----Route 113;
- (iv) Church Branch-----Route 113;
- (v) Turville Creek-----Route 589;
- (vi) Ayer Creek-----Route 376;
- (vii) Newport Creek-----Hayes Landing Road; and
- (viii) Poplartown Creek-----Beaverdam Creek Road.
- (c) Pocomoke River Area (Sub-Basin 02-13-02) boundaries are:
  - (i) Pocomoke River-----A line connecting the mouth of Bullbegger Creek and the east entrance of Fair Hill Channel; and
  - (ii) Manokin River-----Sharps Point.
- (d) Nanticoke River Area (Sub-Basin 02-13-03) boundaries are:
  - (i) Nanticoke River-----A line connecting Newfoundland Point and Hat Crown Point (includes Marshyhope Creek);
  - (ii) Wicomico River-----A line connecting Pine Beach and Holland Point;
  - (iii) Blackwater River-----Mouth at Snake Island; and
  - (iv) Transquaking River-----Mouth at Fishing Bay.
- (e) Choptank River Area (Sub-Basin 02-13-04) boundary is a line connecting Bow Knee Point and Wrights Wharf.
- (f) Chester River Area (Sub-Basin 02-13-05) boundaries are:
  - (i) Chester River-----A line connecting Piney Grove and Primrose Point;
  - (ii) Grays Inn Creek-----A line crossing the creek at Cherry Tree Point;
  - (iii) Herringtown Creek-----All waters are fresh;
  - (iv) West Fork Langford Creek-----A line crossing creek at Fox Point;
  - (v) East Fork Langford Creek-----A line connecting Piney Point and Longmarsh Point;
  - (vi) Philip Creek-----All waters are fresh;
  - (vii) Reed Creek-----Tilghmans Neck Road;
  - (viii) Corsica Creek-----A line crossing the creek at Jacobs Nose;
  - (ix) Emory Creek-----All waters are estuarine water; and
  - (x) All tributaries to the Chester River upstream from Deep Point.
- (g) Elk River Area (Sub-Basin 02-13-06)-----All waters are fresh water.
- (h) Bush River Area (Sub-Basin 02-13-07)-----All waters are fresh water.

- (i) Gunpowder River Area (Sub-Basin 02-13-08)-----All waters are fresh water.
- (j) Patapsco River Area (Sub-Basin 02-13-09) boundaries are:
  - (i) Patapsco River-----A line connecting Lazaretto Point and the southern terminus of the Baltimore Harbor Tunnel; and
  - (ii) Back River-----a line connecting Rocky Point and Cuckhold Point.
- (k) West Chesapeake Bay Area (Sub-Basin 02-13-09) boundaries are:
  - (i) Severn River-----Bridge on State Highway 3;
  - (ii) All tributaries to the Severn River upstream from MD Route 648;
  - (iii) Magothy River-----A line connecting Henderson Point and Pea Patch Point;
  - (iv) All tributaries to the Magothy River are fresh water; and
  - (v) South River-----A line drawn due north from Beards Point.
- (l) Patuxent River Area (Sub-Basin 02-13-11) boundary is a line connecting Chalk Point and God's Grace Point.
- (m) Lower Potomac River Area (Sub-Basin 02-14-01) boundaries are:
  - (i) Potomac River-----A line connecting Upper Cedar Point and Chotank Creek; and
  - (ii) All Maryland tributaries of the Potomac River upstream from St. Catherine Island are fresh water.
- (n) Washington Metropolitan Area (Sub-Basin 02-14-02)-----All waters are fresh water.
- (o) Middle Potomac River Area (Sub-Basin 02-14-03)-----All waters are fresh water.
- (p) Upper Potomac River Area (Sub-Basin 02-14-05)-----All waters are fresh water.
- (q) North Branch Potomac River Area (Sub-Basin 02-14-10)-----All waters are fresh water.
- (r) Youghiogheny River Area (Sub-Basin 05-02-02)-----All waters are fresh water.
- (s) Conewago Creek Area (Sub-Basin 02-05-03)-----All waters are fresh water.
- (t) Chesapeake Bay Proper (Sub-Basin 02-13-99) boundary is a line connecting Booby Point (39 degrees 17 minutes 4.5 seconds north latitude, 76 degrees 10 minutes 54 seconds west longitude) with Handy's Point (39 degrees 17 minutes 31 seconds north latitude, 76 degrees 10 minutes 54 seconds west longitude).

## **26.08.02.03-2 Numerical Criteria for Toxic Substances in Surface Waters.**

A. Numerical toxic substance criteria shall be applied:

- (1) In intermittent streams, at the end of the discharge pipe; and
- (2) In all other water bodies, at the edge of the mixing zones determined in accordance with Regulation .05C—E of this chapter.

B. Acceptable laboratory methods for the detection and measurement of toxic substances shall be specified by the Department.

C. Site-specific numerical toxic substance criteria may be developed on a site-specific basis. A person who wishes to develop a site-specific numerical toxic substance criterion shall:

- (1) Do so in accordance with a scientifically defensible methodology approved by the Department; and
- (2) Notify the Department of their intent not later than the time specified in COMAR 26.08.04.01-1.

D. The toxicity of certain substances in Tables 1 and 4 of §G of this regulation is increased or decreased by hardness or pH. For these toxic substances:

- (1) The Department may:
  - (a) Require the discharger to provide site-specific measurements; or
  - (b) Recalculate the aquatic life criteria based on available water quality data.
- (2) The permittee may voluntarily provide site-specific information for the recalculation of the criteria. It is within the Department's discretion to determine the weight given this information.
- (3) After reviewing the information provided in §D(1) or (2), the Department shall determine if one or more of these criteria should be modified at a particular location.

E. In those cases where numerical toxic substance criteria for aquatic life protection and protection of human health both apply, the most restrictive of the criteria shall be used.

F. Acute and chronic numeric toxic substance criteria for fresh, estuarine, and salt water aquatic life protection and for human health protection are shown in Tables 1—4 of §G. For the instream application of the acute and chronic criteria for the protection of aquatic life in Tables 1—4 of §G of this regulation:

- (1) The metals shall be measured as dissolved metal or as biologically available equivalence and may be translated to total recoverable measurements for waste load allocation to derive discharge permit limits using the procedures for the biological translator or chemical translator described in COMAR 26.08.04;
- (2) The organic substances shall be measured directly or as biologically available equivalence and may be translated for waste load allocation to derive discharge permit limits using the procedures for the biological translator described in COMAR 26.08.04; and
- (3) Cyanide shall be measured as either free cyanide or cyanide amenable to chlorination.

G. Tables of Ambient Water Quality Criteria.

(1) Table 1. Toxic Substances Criteria for Ambient Surface Waters-Inorganic Substances.

| Substance CAS           |         | Aquatic Life (µg/L) |         |                 |         |            |         | Human Health for Consumption of:<br>(Risk Level = 10 <sup>-5</sup> ) (µg/L) |                 |
|-------------------------|---------|---------------------|---------|-----------------|---------|------------|---------|---|-----------------|
|                         |         | Fresh Water         |         | Estuarine Water |         | Salt Water |         | Drinking Water + Organism   | Organism Only   |
|                         |         | Acute               | Chronic | Acute           | Chronic | Acute      | Chronic |   |                 |
| Antimony                | 7440360 |                     |         |                 |         |            |         | 5.6   | 640             |
| Arsenic <sup>1</sup>    | 7440382 | 340                 | 150     |                 |         | 69         | 36      | 10  | 41 <sup>a</sup> |
| Asbestos                | 1332214 |                     |         |                 |         |            |         | 7 million fibers/L  |                 |
| Barium                  | 7440393 |                     |         |                 |         |            |         | 2,000   |                 |
| Beryllium <sup>3</sup>  |         |                     |         |                 |         |            |         | 4   |                 |
| Cadmium <sup>1, 3</sup> | 7440439 | 2.0                 | 0.25    |                 |         | 40         | 8.8     | 5   |                 |
| Chlorine <sup>2</sup>   | 7782505 | 19                  | 11      |                 |         | 13         | 7.5     |   |                 |

|                           |          |     |      |     |  |      |      |       |           |
|---------------------------|----------|-----|------|-----|--|------|------|-------|-----------|
| Chromium (total)          | 7440473  |     |      |     |  |      |      | 100   |           |
| Chromium III <sup>1</sup> | 16065831 | 570 | 74   |     |  |      |      |       |           |
| Chromium VI               | 18540299 | 16  | 11   |     |  | 1100 | 50   |       |           |
| Copper <sup>1</sup>       | 7440508  | 13  | 9    | 6.1 |  | 4.8  | 3.1  | 1,300 |           |
| Cyanide                   | 57125    | 22  | 5.2  |     |  | 1    | 1    | 700   | 220,000   |
| Lead <sup>1</sup>         | 7439921  | 65  | 2.5  |     |  | 210  | 8.1  |       |           |
| Mercury                   | 7439976  | 1.4 | 0.77 |     |  | 1.8  | 0.94 |       |           |
| Methylmercury             | 22967926 |     |      |     |  |      |      |       | 0.3 mg/kg |
| Nickel <sup>1</sup>       | 7440020  | 470 | 52   |     |  | 74   | 8.2  | 610   | 4,600     |
| Selenium                  | 7782492  | 20  | 5    |     |  | 290  | 71   | 170   | 4,200     |
| Silver <sup>1</sup>       | 7440224  | 3.2 |      |     |  | 1.9  |      |       |           |
| Thallium                  | 7440280  |     |      |     |  |      |      | 1.7   | 6.3       |
| Zinc <sup>1</sup>         | 7440666  | 120 | 120  |     |  | 90   | 81   | 7,400 | 26,000    |

<sup>1</sup> Refer to §D of this regulation.

<sup>2</sup>The more stringent of these criteria or the discharge requirements in COMAR 26.08.03.06 shall be used as the basis for determining discharge permit limitations.

<sup>3</sup> The drinking water + organism criterion is the Safe Drinking Water Maximum Contaminant Level.

<sup>a</sup> This criterion will be applied against the actual measurement of inorganic arsenic (As+3) rather than total arsenic.

(2) Table 2. Toxic Substances for Ambient Water Quality Criteria-Organic Compounds.

| Substance CAS                            |        | Aquatic Life (µg/L) |         |            |         | Human Health for Consumption of:<br>(Risk Level = 10 <sup>-5</sup> ) (µg/L) |               |
|--|--------|---------------------|---------|------------|---------|---|---------------|
|  |        | Fresh Water         |         | Salt Water |         |   |               |
|  |        | Acute               | Chronic | Acute      | Chronic | Water<br>+ Organism   | Organism Only |
| 1,1 Dichloroethylene (DCE)               | 75354  |                     |         |            |         | 0.57  | 32            |
| 1,1,1-Trichloroethane (TCA) <sup>2</sup> | 71556  |                     |         |            |         | 200   |               |
| 1,1,2,2-Tetrachloroethane                | 79345  |                     |         |            |         | 1.7   | 4.0           |
| 1,1,2-Trichloroethane                    | 79005  |                     |         |            |         | 5.9   | 160           |
| 1,2,4-Trichlorobenzene                   | 120821 |                     |         |            |         | 260   | 940           |
| 1,2-Dichlorobenzene                      | 95501  |                     |         |            |         | 2,700   | 17,000        |
| 1,2-Dichloroethane                       | 107062 |                     |         |            |         | 3.8   | 370           |
| 1,2-Dichloropropane                      | 78875  |                     |         |            |         | 5.0   | 150           |
| 1,2-Diphenylhydrazine                    | 122667 |                     |         |            |         | 0.36  | 2.0           |
| 1,2-Trans-Dichloroethylene               | 156605 |                     |         |            |         | 700   | 140,000       |
| 1,3-Dichlorobenzene                      | 541731 |                     |         |            |         | 320   | 960           |
| 1,3-Dichloropropene                      | 542756 |                     |         |            |         | 10  | 1,700         |
| 1,4-Dichlorobenzene                      | 106467 |                     |         |            |         | 400   | 2,600         |
| 2,4,6-Trichlorophenol                    | 88062  |                     |         |            |         | 14  | 24            |
| 2,4-Dichlorophenol                       | 120832 |                     |         |            |         | 77  | 290           |
| 2,4-Dimethylphenol                       | 105679 |                     |         |            |         | 380   | 850           |

|                                   |        |  |  |  |  |                        |           |
|-----------------------------------|--------|--|--|--|--|------------------------|-----------|
| 2,4-Dinitrophenol                 | 51285  |  |  |  |  | 69                     | 5,300     |
| 2,4-Dinitrotoluene                | 121142 |  |  |  |  | 1.1                    | 34        |
| 2-Chloronapthalene                | 91587  |  |  |  |  | 1,000                  | 1,600     |
| 2-Chlorophenol                    | 95578  |  |  |  |  | 81                     | 150       |
| 2-Methyl-4,6-Dinitrophenol        | 534521 |  |  |  |  | 13                     | 280       |
| 3,3'-Dichlorobenzidine            | 91941  |  |  |  |  | 0.21                   | 0.28      |
| Acrolein                          | 107028 |  |  |  |  | 190                    | 290       |
| Acrylonitrile                     | 107131 |  |  |  |  | 0.51                   | 2.5       |
| Benzene                           | 71432  |  |  |  |  | 22                     | 510       |
| Benzidine                         | 92875  |  |  |  |  | 0.00086                | 0.0020    |
| Bis(2-Chloroethyl)Ether           | 111444 |  |  |  |  | 0.30                   | 5.3       |
| Bis2(Chloroisopropyl)Ether        | 108601 |  |  |  |  | 1400                   | 65,000    |
| Bromoform <sup>2</sup>            | 75252  |  |  |  |  | See<br>Trihalomethanes | 1,400     |
| Carbon tetrachloride              | 56235  |  |  |  |  | 2.3                    | 16        |
| Chlorobenzene                     | 108907 |  |  |  |  | 680                    | 21,000    |
| Chlorodibromomethane <sup>2</sup> | 124481 |  |  |  |  | See<br>Trihalomethanes | 130       |
| Chloroform <sup>2</sup>           | 67663  |  |  |  |  | See<br>Trihalomethanes | 4,700     |
| Dichlorobromomethane <sup>2</sup> | 75274  |  |  |  |  | See<br>Trihalomethanes | 170       |
| Ethylbenzene                      | 100414 |  |  |  |  | 3,100                  | 29,000    |
| Hexachlorobenzene                 | 118741 |  |  |  |  | 0.0028                 | 0.0029    |
| Hexachlorobutadiene               | 87683  |  |  |  |  | 4.4                    | 180       |
| Hexachlorocyclopentadiene         | 77474  |  |  |  |  | 240                    | 17,000    |
| Hexachloroethane                  | 67721  |  |  |  |  | 14                     | 33        |
| Isophorone                        | 78591  |  |  |  |  | 350                    | 9,600     |
| Methyl bromide                    | 74839  |  |  |  |  | 47                     | 1,500     |
| Methylene chloride                | 75092  |  |  |  |  | 46                     | 5,900     |
| Nitrobenzene                      | 98953  |  |  |  |  | 17                     | 690       |
| N-Nitrosodimethylamine            | 62759  |  |  |  |  | 0.0069                 | 30        |
| N-Nitrosodi-n-Propylamine         | 621647 |  |  |  |  | 0.050                  | 5.1       |
| N-Nitrosodiphenylamine            | 86306  |  |  |  |  | 33                     | 60        |
| Phenol                            | 108952 |  |  |  |  | 21,000                 | 1,700,000 |
| Tetrachloroethylene               | 127184 |  |  |  |  | 6.9                    | 33        |
| Toluene                           | 10883  |  |  |  |  | 6,800                  | 200,000   |
| Trichloroethylene (TCE)           | 79016  |  |  |  |  | 25                     | 300       |
| Trihalomethanes <sup>2</sup>      |        |  |  |  |  | 80                     |           |
| Vinyl chloride                    | 75014  |  |  |  |  | 20                     | 5,300     |

<sup>1</sup> The drinking water + organism criterion is the Safe Drinking Water Maximum Contaminant Level.

<sup>2</sup> Four compounds (bromoform, chlorodibromomethane, chloroform, and dichlorodibromomethane) are found in combination and comprise a category of contaminants called "trihalomethanes" formed as a result of drinking water disinfection. The concentration of

any of these compounds individually, or all of them in sum, may not exceed 80 micrograms per liter. This criterion is equal to the Safe Drinking Water Act Maximum Contaminant Level.

(3) Table 3. Toxic Substances for Ambient Water Quality Criteria-Polycyclic Aromatic Hydrocarbons and Phthalates.

| Substance CAS               |        | Aquatic Life (µg/L) |         |            |         | Human Health for Consumption of:<br>(Risk Level = 10 <sup>-5</sup> ) (µg/L) |               |
|-----------------------------|--------|---------------------|---------|------------|---------|---|---------------|
|                             |        | Fresh Water         |         | Salt Water |         |   |               |
|                             |        | Acute               | Chronic | Acute      | Chronic | Water + Organism  | Organism Only |
| Acenaphthene                | 83329  |                     |         |            |         | 670   | 990           |
| Anthracene                  | 120127 |                     |         |            |         | 8,300   | 40,000        |
| Benzo(a)Anthracene          | 56553  |                     |         |            |         | 0.038   | 0.18          |
| Benzo(a)Pyrene              | 50328  |                     |         |            |         | 0.038   | 0.18          |
| Benzo(b)Fluoranthene        | 205992 |                     |         |            |         | 0.038   | 0.18          |
| Benzo(k)Fluoranthene        | 207089 |                     |         |            |         | 0.038   | 0.18          |
| Chrysene                    | 218019 |                     |         |            |         | 0.038   | 0.18          |
| Dibenzo(a,h)Anthracene      | 53703  |                     |         |            |         | 0.038   | 0.18          |
| Fluoranthene                | 206440 |                     |         |            |         | 130   | 140           |
| Fluorene                    | 86737  |                     |         |            |         | 1,100   | 5,300         |
| Ideno 1,2,3-cdPyrene        | 193395 |                     |         |            |         | 0.038   | 0.18          |
| Pyrene                      | 129000 |                     |         |            |         | 830   | 4,000         |
| Bis(2-Ethylhexyl) Phthalate | 117817 |                     |         |            |         | 12  | 22            |
| Butylbenzyl Phthalate       | 85687  |                     |         |            |         | 1,500   | 1,900         |
| Diethyl Phthalate           | 84662  |                     |         |            |         | 17,000  | 44,000        |
| Dimethyl Phthalate          | 131113 |                     |         |            |         | 270,000   | 1,100,000     |
| Di-n-Butyl Phthalate        | 84742  |                     |         |            |         | 2,000   | 4,500         |

(4) Table 4. Toxic Substances for Ambient Water Quality Criteria-Pesticides and Chlorinated Compounds.

| Substance CAS            |          | Aquatic Life (µg/L) |         |            |         | Human Health for Consumption of:<br>(Risk Level = 10 <sup>-5</sup> ) (µg/L) |               |
|--------------------------|----------|---------------------|---------|------------|---------|---|---------------|
|                          |          | Fresh Water         |         | Salt Water |         |   |               |
|                          |          | Acute               | Chronic | Acute      | Chronic | Water<br>+ Organism   | Organism Only |
| 2, 3, 7, 8-TCDD (Dioxin) | 1746016  |                     |         |            |         | 0.00000005  | 0.00000051    |
| 4,4'-DDD                 | 72548    |                     |         |            |         | 0.0031  | 0.0031        |
| 4,4'-DDE                 | 72559    |                     |         |            |         | 0.0022  | 0.0022        |
| 4,4'-DDT                 | 50293    | 1.1                 | 0.001   | 0.13       | 0.001   | 0.0022  | 0.0022        |
| Aldrin                   | 309002   | 3                   |         | 1.3        |         | 0.00049   | 0.00050       |
| Alpha-BHC                | 319846   |                     |         |            |         | 0.026   | 0.049         |
| Alpha-Endosulfan         | 959988   | 0.22                | 0.056   | 0.034      | 0.0087  | 62  | 89            |
| Atrazine                 | 319857   |                     |         |            |         | 3   |               |
| Beta-BHC                 | 319857   |                     |         |            |         | 0.091   | 0.17          |
| Beta-Endosulfan          | 33213659 | 0.22                | 0.056   | 0.034      | 0.0087  | 62  | 89            |
| Chlordane                | 57749    | 2.4                 | 0.0043  | 0.09       | 0.004   | 0.0080  | 0.0081        |
| Chloropyrifos            | 2921882  | 0.083               |         |            |         |   |               |

|                                      |         |       |        |       |        |         |         |
|--------------------------------------|---------|-------|--------|-------|--------|---------|---------|
| Dieldrin                             | 60571   | 0.24  | 0.056  | 0.71  | 0.0019 | 0.00052 | 0.00054 |
| Endosulfan Sulfate                   | 1031078 |       |        |       |        | 62      | 89      |
| Endrin                               | 72208   | 0.086 | 0.036  | 0.037 | 0.0023 | 0.76    | 0.81    |
| Endrin Aldehyde                      | 7421934 |       |        |       |        | 0.29    | 0.30    |
| Gamma-BHC (Lindane)                  | 58899   | 0.95  |        | 0.16  |        | 0.19    | 0.63    |
| Heptachlor                           | 76448   | 0.52  | 0.0038 | 0.053 | 0.0036 | 0.00079 | 0.00079 |
| Heptachlor Epoxide                   | 1024573 | 0.52  | 0.0038 | 0.053 | 0.0036 | 0.00039 | 0.00039 |
| Polychlorinated Biphenyls PCBs       |         |       | 0.014  |       | 0.03   | 0.00064 | 0.00064 |
| Toxaphene                            | 8001352 | 0.73  | 0.0002 | 0.21  | 0.0002 | 0.0028  | 0.0028  |
| Tributyltin (TBT)                    |         | 0.46  | 0.063  | 0.37  | 0.010  |         |         |
| Pentachlorophenol (PCP) <sup>1</sup> | 87865   | 19    | 15     | 13    | 7.9    | 2.7     | 30      |

<sup>1</sup> Refer to §D of this regulation.

#### H. Acute Numeric Toxic Substance Criteria for Ammonia for the Protection of Fresh Water Aquatic Life (Table 1).

(1) Presence of Salmonid Fish. In Use III, III-P, IV, and IV-P waters, the concentration of total ammonia (in milligrams of nitrogen per liter) may not exceed the acute criterion listed under "Salmonids Present" in Table 1.

(2) Absence of Salmonid Fish. In Use I and I-P waters, the concentration of total ammonia (in milligrams of nitrogen per liter) may not exceed the acute criterion listed under "Salmonids Absent" in Table 1.

(3) Table 1. Acute Water Quality Criteria for freshwater Aquatic Life (milligrams of nitrogen per liter).

| pH  | Salmonids Present <sup>1</sup> | Salmonids Absent <sup>2</sup> |
|-----|--------------------------------|-------------------------------|
| 6.5 | 32.6                           | 48.8                          |
| 6.6 | 31.3                           | 46.8                          |
| 6.7 | 29.8                           | 44.6                          |
| 6.8 | 28.1                           | 42.0                          |
| 6.9 | 26.2                           | 39.1                          |
| 7.0 | 24.1                           | 36.1                          |
| 7.1 | 22.0                           | 32.8                          |
| 7.2 | 19.7                           | 29.5                          |
| 7.3 | 17.5                           | 26.2                          |
| 7.4 | 15.4                           | 23.0                          |
| 7.5 | 13.3                           | 19.9                          |
| 7.6 | 11.4                           | 17.0                          |
| 7.7 | 9.65                           | 14.4                          |
| 7.8 | 8.11                           | 12.1                          |
| 7.9 | 6.77                           | 10.1                          |
| 8.0 | 5.62                           | 8.40                          |
| 8.1 | 4.64                           | 6.95                          |
| 8.2 | 3.83                           | 5.72                          |
| 8.3 | 3.15                           | 4.71                          |
| 8.4 | 2.59                           | 3.88                          |
| 8.5 | 2.14                           | 3.20                          |

|     |       |      |
|-----|-------|------|
| 8.6 | 1.77  | 2.65 |
| 8.7 | 1.47  | 2.20 |
| 8.8 | 1.23  | 1.84 |
| 8.9 | 1.04  | 1.56 |
| 9.0 | 0.885 | 1.32 |

<sup>1</sup> The acute water quality criteria for total ammonia where salmonids may be present was calculated using the following equation, which may also be used to calculate unlisted values: Acute water quality criteria for ammonia (salmonids present) =  $[0.275/(1+107.204 - \text{pH})]+[39.0/(1+10^{\text{pH}} - 7.204)]$

<sup>2</sup> The acute water quality criteria for total ammonia where salmonids are absent were calculated using the following equation, which may also be used to calculate unlisted values: Acute water quality criteria for ammonia (salmonids absent) =  $[0.411/(1+107.204 - \text{pH})]+[58.4/(1+10^{\text{pH}} - 7.204)]$

I. Chronic Numeric Toxic Substance Criteria for Ammonia, Expressed as a 30-day Average, for the Protection of Fresh Water Aquatic Life (Tables 1 and 2).

(1) Averaging Period. The concentration of total ammonia nitrogen (in milligrams of nitrogen per liter) expressed as a 30-day average may not exceed the chronic criterion listed in Tables 1 or 2.

(2) The use of Table 2 requires documentation acceptable to the Department of the absence of fish early life stages.

(3) In addition, the highest 4-day average within the 30-day period may not exceed 2 1/2 times the chronic criterion.

(4) Table 1. Chronic Ammonia Criteria for Waters Where Freshwater Fish Early Life Stages May Be Present (milligrams of nitrogen per liter).<sup>1</sup>

| Temperature (°C) |      |      |      |      |      |       |       |       |       |       |
|------------------|------|------|------|------|------|-------|-------|-------|-------|-------|
| pH               | 0    | 14   | 16   | 18   | 20   | 22    | 24    | 26    | 28    | 30    |
| 6.5              | 6.67 | 6.67 | 6.06 | 5.33 | 4.68 | 4.12  | 3.62  | 3.18  | 2.80  | 2.46  |
| 6.6              | 6.57 | 6.57 | 5.97 | 5.25 | 4.61 | 4.05  | 3.56  | 3.13  | 2.75  | 2.42  |
| 6.7              | 6.44 | 6.44 | 5.86 | 5.15 | 4.52 | 3.98  | 3.50  | 3.07  | 2.70  | 2.37  |
| 6.8              | 6.29 | 6.29 | 5.72 | 5.03 | 4.42 | 3.89  | 3.42  | 3.00  | 2.64  | 2.32  |
| 6.9              | 6.12 | 6.12 | 5.56 | 4.89 | 4.30 | 3.78  | 3.32  | 2.92  | 2.57  | 2.25  |
| 7.0              | 5.91 | 5.91 | 5.37 | 4.72 | 4.15 | 3.65  | 3.21  | 2.82  | 2.48  | 2.18  |
| 7.1              | 5.67 | 5.67 | 5.15 | 4.53 | 3.98 | 3.50  | 3.08  | 2.70  | 2.38  | 2.09  |
| 7.2              | 5.39 | 5.39 | 4.90 | 4.31 | 3.78 | 3.33  | 2.92  | 2.57  | 2.26  | 1.99  |
| 7.3              | 5.08 | 5.08 | 4.61 | 4.06 | 3.57 | 3.13  | 2.76  | 2.42  | 2.13  | 1.87  |
| 7.4              | 4.73 | 4.73 | 4.30 | 3.78 | 3.32 | 2.92  | 2.57  | 2.26  | 1.98  | 1.74  |
| 7.5              | 4.36 | 4.36 | 3.97 | 3.49 | 3.06 | 2.69  | 2.37  | 2.08  | 1.83  | 1.61  |
| 7.6              | 3.98 | 3.98 | 3.61 | 3.18 | 2.79 | 2.45  | 2.16  | 1.90  | 1.67  | 1.47  |
| 7.7              | 3.58 | 3.58 | 3.25 | 2.86 | 2.51 | 2.21  | 1.94  | 1.71  | 1.50  | 1.32  |
| 7.8              | 3.18 | 3.18 | 2.89 | 2.54 | 2.23 | 1.96  | 1.73  | 1.52  | 1.33  | 1.17  |
| 7.9              | 2.80 | 2.80 | 2.54 | 2.24 | 1.96 | 1.73  | 1.52  | 1.33  | 1.17  | 1.03  |
| 8.0              | 2.43 | 2.43 | 2.21 | 1.94 | 1.71 | 1.50  | 1.32  | 1.16  | 1.02  | 0.897 |
| 8.1              | 2.10 | 2.10 | 1.91 | 1.68 | 1.47 | 1.29  | 1.14  | 1.00  | 0.879 | 0.773 |
| 8.2              | 1.79 | 1.79 | 1.63 | 1.43 | 1.26 | 1.11  | 0.973 | 0.855 | 0.752 | 0.661 |
| 8.3              | 1.52 | 1.52 | 1.39 | 1.22 | 1.07 | 0.941 | 0.827 | 0.727 | 0.639 | 0.562 |

|     |       |       |       |       |       |       |       |       |       |       |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 8.4 | 1.29  | 1.29  | 1.17  | 1.03  | 0.906 | 0.796 | 0.700 | 0.615 | 0.541 | 0.475 |
| 8.5 | 1.09  | 1.09  | 0.990 | 0.870 | 0.765 | 0.672 | 0.591 | 0.520 | 0.457 | 0.401 |
| 8.6 | 0.920 | 0.920 | 0.836 | 0.735 | 0.646 | 0.568 | 0.499 | 0.439 | 0.386 | 0.339 |
| 8.7 | 0.778 | 0.778 | 0.707 | 0.622 | 0.547 | 0.480 | 0.422 | 0.371 | 0.326 | 0.287 |
| 8.8 | 0.661 | 0.661 | 0.601 | 0.528 | 0.464 | 0.408 | 0.359 | 0.315 | 0.277 | 0.244 |
| 8.9 | 0.565 | 0.565 | 0.513 | 0.451 | 0.397 | 0.349 | 0.306 | 0.269 | 0.237 | 0.208 |
| 9.0 | 0.486 | 0.486 | 0.442 | 0.389 | 0.342 | 0.300 | 0.264 | 0.232 | 0.204 | 0.179 |

<sup>1</sup> The freshwater chronic water quality criteria for total ammonia where fish early life stages may be present were calculated using the following equation, which may also be used to calculate unlisted values:

Freshwater chronic water quality criterion for ammonia (fish early life stages present) =  $[0.0577/(1 + 107.688 - \text{pH})] + [2.487/(1 + 10^{\text{pH} - 7.688})] \times \text{MIN}(2.85, 1.45 \times 100.028 \times \text{w}(25 - T))$

Where MIN indicates the lesser of the two values separated by a comma.

(5) Table 2. Chronic Ammonia Criteria for Waters Where Freshwater Fish Early Life Stages Are Absent (milligrams of nitrogen per liter).<sup>1</sup>

| Temperature (°C) |      |      |       |       |       |       |       |       |                 |                 |
|------------------|------|------|-------|-------|-------|-------|-------|-------|-----------------|-----------------|
| pH               | 0—7  | 8    | 9     | 10    | 11    | 12    | 13    | 14    | 15 <sup>2</sup> | 16 <sup>2</sup> |
| 6.5              | 10.8 | 10.1 | 9.51  | 8.92  | 8.36  | 7.84  | 7.35  | 6.89  | 6.46            | 6.06            |
| 6.6              | 10.7 | 9.99 | 9.37  | 8.79  | 8.24  | 7.72  | 7.24  | 6.79  | 6.36            | 5.97            |
| 6.7              | 10.5 | 9.81 | 9.20  | 8.62  | 8.08  | 7.58  | 7.11  | 6.66  | 6.25            | 5.86            |
| 6.8              | 10.2 | 9.58 | 8.98  | 8.42  | 7.90  | 7.40  | 6.94  | 6.51  | 6.10            | 5.72            |
| 6.9              | 9.93 | 9.31 | 8.73  | 8.19  | 7.68  | 7.20  | 6.75  | 6.33  | 5.93            | 5.56            |
| 7.0              | 9.60 | 9.00 | 8.43  | 7.91  | 7.41  | 6.95  | 6.52  | 6.11  | 5.73            | 5.37            |
| 7.1              | 9.20 | 8.63 | 8.09  | 7.58  | 7.11  | 6.67  | 6.25  | 5.86  | 5.49            | 5.15            |
| 7.2              | 8.75 | 8.20 | 7.69  | 7.21  | 6.76  | 6.34  | 5.94  | 5.57  | 5.22            | 4.90            |
| 7.3              | 8.24 | 7.73 | 7.25  | 6.79  | 6.37  | 5.97  | 5.60  | 5.25  | 4.92            | 4.61            |
| 7.4              | 7.69 | 7.21 | 6.76  | 6.33  | 5.94  | 5.57  | 5.22  | 4.89  | 4.59            | 4.30            |
| 7.5              | 7.09 | 6.64 | 6.23  | 5.84  | 5.48  | 5.13  | 4.81  | 4.51  | 4.23            | 3.97            |
| 7.6              | 6.46 | 6.05 | 5.67  | 5.32  | 4.99  | 4.68  | 4.38  | 4.11  | 3.85            | 3.61            |
| 7.7              | 5.81 | 5.45 | 5.11  | 4.79  | 4.49  | 4.21  | 3.95  | 3.70  | 3.47            | 3.25            |
| 7.8              | 5.17 | 4.84 | 4.54  | 4.26  | 3.99  | 3.74  | 3.51  | 3.29  | 3.09            | 2.89            |
| 7.9              | 4.54 | 4.26 | 3.99  | 3.74  | 3.51  | 3.29  | 3.09  | 2.89  | 2.71            | 2.54            |
| 8.0              | 3.95 | 3.70 | 3.47  | 3.26  | 3.05  | 2.86  | 2.68  | 2.52  | 2.36            | 2.21            |
| 8.1              | 3.41 | 3.19 | 2.99  | 2.81  | 2.63  | 2.47  | 2.31  | 2.17  | 2.03            | 1.91            |
| 8.2              | 2.91 | 2.73 | 2.56  | 2.40  | 2.25  | 2.11  | 1.98  | 1.85  | 1.74            | 1.63            |
| 8.3              | 2.47 | 2.32 | 2.18  | 2.04  | 1.91  | 1.79  | 1.68  | 1.58  | 1.48            | 1.39            |
| 8.4              | 2.09 | 1.96 | 1.84  | 1.73  | 1.62  | 1.52  | 1.42  | 1.33  | 1.25            | 1.17            |
| 8.5              | 1.77 | 1.66 | 1.55  | 1.46  | 1.37  | 1.28  | 1.20  | 1.13  | 1.06            | 0.990           |
| 8.6              | 1.49 | 1.40 | 1.31  | 1.23  | 1.15  | 1.08  | 1.01  | 0.951 | 0.892           | 0.836           |
| 8.7              | 1.26 | 1.18 | 1.11  | 1.04  | 0.976 | 0.915 | 0.858 | 0.805 | 0.754           | 0.707           |
| 8.8              | 1.07 | 1.01 | 0.944 | 0.885 | 0.829 | 0.778 | 0.729 | 0.684 | 0.641           | 0.601           |

|     |       |       |       |       |       |       |       |       |       |       |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 8.9 | 0.917 | 0.860 | 0.806 | 0.756 | 0.709 | 0.664 | 0.623 | 0.584 | 0.548 | 0.513 |
| 9.0 | 0.790 | 0.740 | 0.694 | 0.651 | 0.610 | 0.572 | 0.536 | 0.503 | 0.471 | 0.442 |

<sup>1</sup>The freshwater chronic water quality criteria for total ammonia where fish early life stages are absent were calculated using the following equation, which may also be used to calculate unlisted values:

Freshwater chronic water quality criterion for ammonia (fish early life stages absent) =  $[0.0577/(1 + 107.688 - \text{pH})] + [2.487/(1 + 10^{\text{pH} - 7.688})] \times 1.45 \times 100.028 \times (25 - \text{MAX}(T, 7))$

Where MAX indicates the greater of the two values separated by a comma.

<sup>2</sup>At 15°C and above, the criterion for fish early life stage absent is the same as the criterion for fish early life stage present.

J. Saltwater and Estuarine Acute Criteria for Ammonia. Acute numeric toxic substance criteria for ammonia to protect marine and estuarine life are shown in Table 1. In estuarine and saltwaters, the concentration of total ammonia (in milligrams/liter) may not exceed the acute criterion listed in Table 1. Milligrams per liter total ammonia in saltwater (Table 1) may be converted to milligrams of ammonia nitrogen per liter (as used in §§H and I of this regulation) by multiplying the criteria values in Table 1 by 14/17 (or 0.82353) to result in total ammonia nitrogen.

Table 1 Acute Water Quality Criteria for Saltwater Aquatic Life (milligrams per liter total ammonia).

| Temperature (°C)                    |     |     |     |     |      |      |      |      |
|-------------------------------------|-----|-----|-----|-----|------|------|------|------|
|                                     | 0   | 5   | 10  | 15  | 20   | 25   | 30   | 35   |
| pH Salinity = 10 parts per thousand |     |     |     |     |      |      |      |      |
| 7.0                                 | 270 | 191 | 131 | 92  | 62   | 44   | 29   | 21   |
| 7.2                                 | 175 | 121 | 83  | 58  | 40   | 27   | 19   | 13   |
| 7.4                                 | 110 | 77  | 52  | 35  | 25   | 17   | 12   | 8.3  |
| 7.6                                 | 69  | 48  | 33  | 23  | 16   | 11   | 7.7  | 5.6  |
| 7.8                                 | 44  | 31  | 21  | 15  | 10   | 7.1  | 5.0  | 3.5  |
| 8.0                                 | 27  | 19  | 13  | 9.4 | 6.4  | 4.6  | 3.1  | 2.3  |
| 8.2                                 | 18  | 12  | 8.5 | 5.8 | 4.2  | 2.9  | 2.1  | 1.5  |
| 8.4                                 | 11  | 7.9 | 5.4 | 3.7 | 2.7  | 1.9  | 1.4  | 1.0  |
| 8.6                                 | 7.3 | 5.0 | 3.5 | 2.5 | 1.8  | 1.3  | 0.98 | 0.75 |
| 8.8                                 | 4.6 | 3.3 | 2.3 | 1.7 | 1.2  | 0.92 | 0.71 | 0.56 |
| 9.0                                 | 2.9 | 2.1 | 1.5 | 1.1 | 0.85 | 0.67 | 0.52 | 0.44 |
| pH Salinity = 20 parts per thousand |     |     |     |     |      |      |      |      |
| 7.0                                 | 291 | 200 | 137 | 96  | 64   | 44   | 31   | 21   |
| 7.2                                 | 183 | 125 | 87  | 60  | 42   | 29   | 20   | 14   |
| 7.4                                 | 116 | 79  | 54  | 37  | 27   | 18   | 12   | 8.7  |
| 7.6                                 | 73  | 50  | 35  | 23  | 17   | 11   | 7.9  | 5.6  |
| 7.8                                 | 46  | 31  | 23  | 15  | 11   | 7.5  | 5.2  | 3.5  |
| 8.0                                 | 29  | 20  | 14  | 9.8 | 6.7  | 4.8  | 3.3  | 2.3  |
| 8.2                                 | 19  | 13  | 8.9 | 6.2 | 4.4  | 3.1  | 2.1  | 1.6  |
| 8.4                                 | 12  | 8.1 | 5.6 | 4.0 | 2.9  | 2.0  | 1.5  | 1.1  |
| 8.6                                 | 7.5 | 5.2 | 3.7 | 2.7 | 1.9  | 1.4  | 1.0  | 0.77 |
| 8.8                                 | 4.8 | 3.3 | 2.5 | 1.7 | 1.3  | 0.94 | 0.73 | 0.56 |
| 9.0                                 | 3.1 | 2.3 | 1.6 | 1.2 | 0.87 | 0.69 | 0.54 | 0.44 |

| pH  | Salinity = 30 parts per thousand |     |     |     |      |      |      |      |
|-----|----------------------------------|-----|-----|-----|------|------|------|------|
| 7.0 | 312                              | 208 | 148 | 102 | 71   | 48   | 33   | 23   |
| 7.2 | 196                              | 135 | 94  | 64  | 44   | 31   | 21   | 15   |
| 7.4 | 125                              | 85  | 58  | 40  | 27   | 19   | 13   | 9.4  |
| 7.6 | 79                               | 54  | 37  | 25  | 21   | 12   | 8.5  | 6.0  |
| 7.8 | 50                               | 33  | 23  | 16  | 11   | 7.9  | 5.4  | 3.7  |
| 8.0 | 31                               | 21  | 15  | 10  | 7.3  | 5.0  | 3.5  | 2.5  |
| 8.2 | 20                               | 14  | 9.6 | 6.7 | 4.6  | 3.3  | 2.3  | 1.7  |
| 8.4 | 12.7                             | 8.7 | 6.0 | 4.2 | 2.9  | 2.1  | 1.6  | 1.1  |
| 8.6 | 8.1                              | 5.6 | 4.0 | 2.7 | 2.0  | 1.4  | 1.1  | 0.81 |
| 8.8 | 5.2                              | 3.5 | 2.5 | 1.8 | 1.3  | 1.0  | 0.75 | 0.58 |
| 9.0 | 3.3                              | 2.3 | 1.7 | 1.2 | 0.94 | 0.71 | 0.56 | 0.46 |

#### K. Saltwater and Estuarine Chronic Criteria for Ammonia.

- (1) Chronic numeric toxic substance criteria for ammonia to protect marine and estuarine life are shown in Table 1.
- (2) Averaging Period. The concentration of total ammonia (in milligrams/liter) expressed as a 30-day average may not exceed the chronic criterion listed in Table 1.
- (3) Milligrams per liter total ammonia in saltwater (Table 1) may be converted to milligrams of ammonia nitrogen per liter (as used in §§H and I of this regulation) by multiplying the criteria values in Table 1 by 14/17 (or 0.82353) to result in total ammonia nitrogen.

Table 1 Chronic Water Quality Criteria for Saltwater Aquatic Life (milligrams/liter total ammonia).

| Temperature (°C) |                                  |      |      |      |      |      |      |      |
|------------------|----------------------------------|------|------|------|------|------|------|------|
|                  | 0                                | 5    | 10   | 15   | 20   | 25   | 30   | 35   |
| pH               | Salinity = 10 parts per thousand |      |      |      |      |      |      |      |
| 7.0              | 41                               | 29   | 20   | 14   | 9.4  | 6.6  | 4.4  | 3.1  |
| 7.2              | 26                               | 18   | 12   | 8.7  | 5.9  | 4.1  | 2.8  | 2.0  |
| 7.4              | 17                               | 12   | 7.8  | 5.3  | 3.7  | 2.6  | 1.8  | 1.2  |
| 7.6              | 10                               | 7.2  | 5.0  | 3.4  | 2.4  | 1.7  | 1.2  | 0.84 |
| 7.8              | 6.6                              | 4.7  | 3.1  | 2.2  | 1.5  | 1.1  | 0.75 | 0.53 |
| 8.0              | 4.1                              | 2.9  | 2.0  | 1.40 | 0.97 | 0.69 | 0.47 | 0.34 |
| 8.2              | 2.7                              | 1.8  | 1.3  | 0.87 | 0.62 | 0.44 | 0.31 | 0.23 |
| 8.4              | 1.7                              | 1.2  | 0.81 | 0.56 | 0.41 | 0.29 | 0.21 | 0.16 |
| 8.6              | 1.1                              | 0.75 | 0.53 | 0.37 | 0.27 | 0.20 | 0.15 | 0.11 |
| 8.8              | 0.69                             | 0.50 | 0.34 | 0.25 | 0.18 | 0.14 | 0.11 | 0.08 |
| 9.0              | 0.44                             | 0.31 | 0.23 | 0.17 | 0.13 | 0.10 | 0.08 | 0.07 |
| pH               | Salinity = 20 parts per thousand |      |      |      |      |      |      |      |
| 7.0              | 44                               | 30   | 21   | 14   | 9.7  | 6.6  | 4.7  | 3.1  |
| 7.2              | 27                               | 19   | 13   | 9.0  | 6.02 | 4.4  | 3.0  | 2.1  |
| 7.4              | 18                               | 12   | 8.1  | 5.6  | 4.1  | 2.7  | 1.9  | 1.3  |
| 7.6              | 11                               | 7.5  | 5.3  | 3.4  | 2.5  | 1.7  | 1.2  | 0.84 |
| 7.8              | 6.9                              | 4.7  | 3.4  | 2.3  | 1.6  | 1.1  | 0.78 | 0.53 |
| 8.0              | 4.4                              | 3.0  | 2.1  | 1.5  | 1.0  | 0.72 | 0.50 | 0.34 |

|     |                                  |      |      |      |      |      |      |      |
|-----|----------------------------------|------|------|------|------|------|------|------|
| 8.2 | 2.8                              | 1.9  | 1.3  | 0.94 | 0.66 | 0.47 | 0.31 | 0.24 |
| 8.4 | 1.8                              | 1.2  | 0.84 | 0.59 | 0.44 | 0.30 | 0.22 | 0.16 |
| 8.6 | 1.1                              | 0.78 | 0.56 | 0.41 | 0.28 | 0.20 | 0.15 | 0.12 |
| 8.8 | 0.72                             | 0.50 | 0.37 | 0.26 | 0.19 | 0.14 | 0.11 | 0.08 |
| 9.0 | 0.47                             | 0.34 | 0.24 | 0.18 | 0.13 | 0.10 | 0.08 | 0.07 |
| pH  | Salinity = 30 parts per thousand |      |      |      |      |      |      |      |
| 7.0 | 47                               | 31   | 22   | 15   | 11   | 7.2  | 5.0  | 3.4  |
| 7.2 | 29                               | 20   | 14   | 9.7  | 6.6  | 4.7  | 3.1  | 2.2  |
| 7.4 | 19                               | 13   | 8.7  | 5.9  | 4.1  | 2.9  | 2.0  | 1.4  |
| 7.6 | 12                               | 8.1  | 5.6  | 3.7  | 3.1  | 1.8  | 1.3  | 0.90 |
| 7.8 | 7.5                              | 5.0  | 3.4  | 2.4  | 1.7  | 1.2  | 0.81 | 0.56 |
| 8.0 | 4.7                              | 3.1  | 2.2  | 1.6  | 1.1  | 0.75 | 0.53 | 0.37 |
| 8.2 | 3.0                              | 2.1  | 1.4  | 1.0  | 0.69 | 0.50 | 0.34 | 0.25 |
| 8.4 | 1.9                              | 1.3  | 0.90 | 0.62 | 0.44 | 0.31 | 0.23 | 0.17 |
| 8.6 | 1.2                              | 0.84 | 0.59 | 0.41 | 0.30 | 0.22 | 0.16 | 0.12 |
| 8.8 | 0.78                             | 0.53 | 0.37 | 0.27 | 0.20 | 0.15 | 0.11 | 0.09 |
| 9.0 | 0.50                             | 0.34 | 0.26 | 0.19 | 0.14 | 0.11 | 0.08 | 0.07 |

### 26.08.02.03-3 Water Quality Criteria Specific to Designated Uses.

A. Criteria for Use I Waters—Water Contact Recreation and Protection of Nontidal Warmwater Aquatic Life.

(1) Bacteriological.

(a) Table 1. Bacteria Indicator Criteria for Frequency of Use.

| Steady State Geometric<br>Mean Indicator Density |           |                   | Single Sample Maximum<br>Allowable Density |                   |                   |
|--|-----------|-------------------|--|-------------------|-------------------|
| Indicator  | All Areas | Moderately        |  |                   |                   |
|  |           | Frequent          | Full                                       | Occasional        | Infrequent        |
|  |           | Body              | Body                                       | Full Body         | Full Body         |
|  |           | Contact           | Contact                                    | Contact           | Contact           |
|  |           | Recreation        | Recreation                                 | Recreation        | Recreation        |
|  |           | (Upper<br>75% CL) | (Upper<br>82% CL)                          | (Upper<br>90% CL) | (Upper<br>95% CL) |
| Freshwater<br>(Either apply)                     |           |                   |  |                   |                   |
| Enterococci                                      | 33        | 61                | 78   | 107               | 151               |
| E. coli  | 126       | 235               | 298  | 410               | 576               |
| Marine water                                     |           |                   |  |                   |                   |
| Enterococci                                      | 35        | 104               | 158  | 275               | 500               |

CL = confidence level

All numbers are counts per 100 milliliters

(b) In freshwater for E. coli, the following formula is used to calculate the upper 75 percent confidence interval for single sample maximum allowable density:  $\text{antilog}[(\log 126) + 0.675 * \log(\text{SD})]$ .

(c) In freshwater for enterococci, the following formula is used to calculate the upper 75 percent confidence interval for single sample maximum allowable density:  $\text{antilog}[(\log 33) + 0.675 * \log(\text{SD})]$ , where  $\log(\text{SD})$  is the standard deviation of the log transformed E. coli or enterococci data. If the site data are insufficient to establish a log standard deviation, then 0.4 is used as the log standard deviation for both indicators. At the default log standard deviation, the values are 235 for E. coli and 61 for enterococci.

(d) In saltwater, for enterococci, the following formula is used to calculate the upper 75 percent confidence interval for single sample maximum allowable density:  $\text{antilog}[(\log 35) + 0.675 * \log(\text{SD})]$ , where  $\log(\text{SD})$  is the standard deviation of the log transformed enterococci data. If the site data are insufficient to establish a log standard deviation, then 0.7 is used as the log standard deviation. At the default log standard deviation, the value is 104.

(e) Confidence Level Factors.

(i) The factors in Table 2 are used in the formulas in this subsection to calculate the appropriate confidence limits when site-specific standard deviations are used.

(ii) Table 2.

| Confidence Level | Factor |
|------------------|--------|
| 75%              | 0.675  |
| 82%              | 0.935  |
| 90%              | 1.280  |
| 95%              | 1.650  |

(f) Establishment of a Site-Specific Standard Deviation. A site-specific standard deviation for use in the formulas in this subsection shall be based on at least 30 samples, taken over not more than one recreational season, at base flows.

(g) When a sanitary survey and an epidemiological study approved by the Department disclose no significant health hazard, the criteria in Table 1 do not apply.

(2) Dissolved Oxygen. The dissolved oxygen concentration may not be less than 5 milligrams/liter at any time.

(3) Temperature.

(a) The maximum temperature outside the mixing zone determined in accordance with Regulation .05 of this chapter or COMAR 26.08.03.03 —.05 may not exceed 90°F (32°C) or the ambient temperature of the surface surface waters, whichever is greater.

(b) A thermal barrier that adversely affects aquatic life may not be established.

(c) Ambient temperature is the water temperature that is not impacted by a point source discharge.

(d) Ambient temperature shall be measured in areas of the stream representative of typical or average conditions of the stream segment in question.

(e) The Department may determine specific temperature measurement methods, times, and locations.

(4) pH. Normal pH values may not be less than 6.5 or greater than 8.5.

(5) Turbidity.

(a) Turbidity may not exceed levels detrimental to aquatic life.

(b) Turbidity in the surface water resulting from any discharge may not exceed 150 units at any time or 50 units as a monthly average. Units shall be measured in Nephelometer Turbidity Units.

(6) Color. Color in the surface water may not exceed 75 units as a monthly average. Units shall be measured in Platinum Cobalt Units.

(7) Toxic Substance Criteria. All toxic substance criteria to protect:

(a) Fresh water aquatic organisms apply in waters designated as fresh water in Regulation .03-1B;

(b) Estuarine or salt water aquatic organisms apply in waters designated as estuarine or salt waters as specified in Regulation .03-1B; and

(c) The wholesomeness of fish for human consumption apply in fresh, estuarine, and salt waters.

B. Criteria for Subcategory Use I-P Waters—Water Contact Recreation, Protection of Nontidal Warmwater Aquatic Life and Public Water Supply. The following criteria apply:

(1) The criteria for Use I waters in §A(1)—(5); and

(2) Toxic Substance Criteria. All toxic substance criteria:

(a) For protection of fresh water aquatic organisms apply; and

(b) To protect public water supplies and the wholesomeness of fish for human consumption apply.

C. Criteria for Use II Waters—Support of Estuarine and Marine Aquatic Life and Shellfish Harvesting.

(1) Bacteriological Criteria. These criteria are the same as for Use I, criteria for protection of recreational use except in Shellfish Harvest Waters, the following criteria also apply. In Shellfish Harvest waters, there may not be any pathogenic or harmful organisms in sufficient quantities to constitute a public health hazard in the use of waters for shellfish harvesting. A public health hazard for the consumption of raw shellfish will be presumed:

(a) If the most probable number (MPN) of fecal coliform organisms exceeds a median concentration of 14 MPN per 100 milliliters;

(b) If more than 10 percent of samples taken exceed 43 MPN per 100 milliliters for a 5-tube decimal dilution test or 49 per 100 milliliters for a 3-tube decimal dilution test; or

(c) Except when a sanitary survey approved by the Department of the Environment discloses no significant health hazard, §C(1)(a) and (b) do not apply and a public health hazard from the consumption of shellfish will not be presumed.

(2) Classification of Use II Waters for Harvesting.

(a) Approved classification means that the median fecal coliform MPN of at least 30 water sample results taken over a 3-year period to incorporate inter-annual variability does not exceed 14 per 100 milliliters; and:

(i) In areas affected by point source discharges, not more than 10 percent of the samples exceed an MPN of 43 per 100 milliliters for a five tube decimal dilution test or 49 MPN per 100 milliliters for a three tube decimal dilution test; or

(ii) In other areas, the 90th percentile of water sample results does not exceed an MPN of 43 per 100 milliliters for a five tube decimal dilution test or 49 MPN per 100 milliliters for a three tube decimal dilution test.

(b) Conditionally approved classification means that the Department has determined that under certain conditions an area is restricted, but when not restricted, meets the conditions for the approved classification.

(c) Restricted classification means that the median fecal coliform MPN of at least 30 water sample results taken over a 3-year period does not exceed 88 per 100 milliliters or that the Department has determined that a public health hazard exists; and:

(i) In areas affected by point source discharges, not more than 10 percent of the samples exceed an MPN of 260 per 100 milliliters for a five tube decimal dilution test or 300 MPN per 100 milliliters for a three tube decimal dilution test; or

(ii) In other areas, the 90th percentile of water sample results does not exceed an MPN of 260 per 100 milliliters for a five tube decimal dilution test or 300 MPN per 100 milliliter for a three tube decimal dilution test.

- (d) Prohibited classification means that the fecal coliform values exceed those required for the restricted classification or is an area designated by the Department as a closed safety zone adjacent to a sewage treatment facility outfall or is an area closed due to a known pollution source.
- (3) Temperature—same as Use I waters.
- (4) pH—same as Use I waters.
- (5) Turbidity—same as Use I waters.
- (6) Color—same as Use I waters.
- (7) Toxic Substance Criteria. All toxic substance criteria to protect:
- (a) Estuarine or salt water aquatic organisms apply in accordance with the requirements of Regulation .03-1B; and
- (b) The wholesomeness of fish for human consumption apply.
- (8) Dissolved Oxygen Criteria for Use II Waters.
- (a) This criteria is the same as for Use I waters, except for the Chesapeake Bay mainstem and associated tidal tributary subcategories.
- (b) Seasonal and Migratory Fish Spawning and Nursery Subcategory. The dissolved oxygen concentrations in areas designated as migratory spawning and nursery seasonal use shall be:
- (i) Greater than or equal to 6 milligrams/liter for a 7-day averaging period from February 1 through May 31;
- (ii) Greater than or equal to 5 milligrams/liter as an instantaneous minimum from February 1 through May 31; and
- (iii) The open-water fish and shellfish subcategory criteria apply from June 1 to January 31.
- (c) The seasonal shallow-water submerged aquatic vegetation subcategory is the same as for the open-water fish and shellfish subcategory year-round.
- (d) Open-Water Fish and Shellfish Subcategory. The dissolved oxygen concentrations in areas designated as open-water fish and shellfish subcategory shall be:
- (i) Greater than or equal to 5.5 milligrams/liter for a 30-day averaging period year-round in tidal fresh waters (salinity less than or equal to 0.5 parts per thousand);
- (ii) Greater than or equal to 5 milligrams/liter for a 30-day averaging period year-round (salinity greater than 0.5 parts per thousand);
- (iii) Greater than or equal to 4.0 milligrams/liter for a 7-day averaging period year-round;
- (iv) Greater than or equal to 3.2 milligrams/liter as an instantaneous minimum year-round; and
- (v) For protection of the endangered shortnose sturgeon, greater than or equal to 4.3 milligrams/liter as an instantaneous minimum at water column temperatures greater than 29°C (77°F).
- (e) Seasonal Deep-Water Fish and Shellfish Subcategory. The dissolved oxygen concentrations in areas designated as seasonal deep-water fish and shellfish subcategory shall be:
- (i) Greater than or equal to 3.0 milligrams/liter for a 30-day averaging period from June 1 through September 30;
- (ii) Greater than or equal to 2.3 milligrams/liter for a 1-day averaging period from June 1 through September 30;
- (iii) Greater than or equal to 1.7 milligrams/liter as an instantaneous minimum from June 1 through September 30;

- (iv) The open-water fish and shellfish subcategory criteria apply from October 1 to May 31;
- (v) For the dissolved oxygen criteria restoration variance for Chesapeake Bay Mainstem Segment 4 mesohaline (CB4MH) seasonal deep-water fish and shellfish subcategory, not lower for dissolved oxygen in segment CB4MH than the stated criteria for the seasonal deep-water seasonal fish and shellfish use for more than 7 percent spatially and temporally (in combination), from June 1 to September 30; and
- (vi) For dissolved oxygen criteria restoration variance for Patapsco River mesohaline (PATMH) seasonal deep-water fish and shellfish subcategory, not lower for dissolved oxygen in segment PATMH than the stated criteria for the deep-water seasonal fish and shellfish use for more than 7 percent spatially and temporally (in combination), from June 1 to September 30.
- (f) Seasonal Deep-Channel Refuge Subcategory. The dissolved oxygen concentrations in areas designated as deep-channel seasonal refuge use shall be:
- (i) Greater than or equal to 1.0 milligrams/liter as an instantaneous minimum from June 1 through September 30 except for Chesapeake Bay segments subject to variances;
- (ii) For dissolved oxygen criteria restoration variance for Chesapeake Bay Mainstem Segment 4 mesohaline (CB4MH) deep-channel refuge subcategory, not lower for dissolved oxygen in segment CB4MH than the stated criteria for the seasonal deep-channel refuge for more than 2 percent spatially or temporally (in combination), from June 1 to September 30; and
- (iii) The same as for the open-water fish and shellfish subcategory from October 1 to May 31.
- (g) Implementation of the Dissolved Oxygen Water Quality Standard. The attainment of the dissolved oxygen criteria that apply to the Chesapeake Bay and tidally influenced tributary waters shall be determined consistent with the guidelines established in the 2003 U.S. Environmental Protection Agency publication "Ambient Water Quality Criteria for Dissolved Oxygen, Water Clarity and Chlorophyll a for the Chesapeake Bay and its Tidal Tributaries (EPA 903-R-03-002)" and the "Ambient Water Quality Criteria for Dissolved Oxygen, Water Clarity and Chlorophyll a for the Chesapeake Bay and its Tidal Tributaries—2004 Addendum (EPA 903-R-04-005)" which are incorporated by reference.
- (h) Restoration Variance. The percentage of allowable exceedance for restoration variances is based on water quality modeling and incorporates the best available data and assumptions. The restoration variances are temporary, and will be reviewed at a minimum every three years, as required by the Clean Water Act and EPA regulations. The variances may be modified based on new data or assumptions incorporated into the water quality model.
- (9) Water Clarity Criteria for Seasonal Shallow-Water Submerged Aquatic Vegetation Subcategory.
- (a) Water Clarity Criteria Measurement. The attainment of the water clarity criteria for a given Bay segment can be determined using any of the following methods:
- (i) Shallow-water acreage meets or exceeds the percent-light-through-water (PLW) criteria expressed in Secchi depth equivalence (Table 1) at the segment specific application depth specified in Regulation .08 of this chapter (excludes no grow zones);
- (ii) Submerged aquatic vegetation (SAV) acreage meets or exceeds the acreage restoration goal (Table 2); or
- (iii) Shallow-water acreage meeting or exceeding the secchi depth requirements in combination with actual SAV acreage equal or exceed the SAV restoration goal acreage.
- (b) Table 1. Numerical Water Clarity Criteria (in Secchi Depth equivalents) for General Application to Shallow Water Aquatic Vegetation Bay Grass Designated Use (Application Depths Given in 0.5 Meter Attainment Intervals<sup>1</sup>).

| Salinity Regime | Water Clarity Criteria<br>as Percent Light<br>through Water | Water Clarity Criteria as Secchi Depth<br>(meters)      |     |     |     | Seasonal Application |
|-----------------|---|---|-----|-----|-----|----------------------|
|                 |   | Water Clarity Criteria Application<br>Depths (meters)   |     |     |     |                      |
|                 |   | 0.5   | 1.0 | 1.5 | 2.0 |                      |
|                 |   | Secchi Depth Equivalents for Criteria Application Depth |     |     |     |                      |

|             |     |     |     |     |     |                      |
|-------------|-----|-----|-----|-----|-----|----------------------|
| Tidal Fresh | 13% | 0.4 | 0.7 | 1.1 | 1.4 | April 1 to October 1 |
| Oligohaline | 13% | 0.4 | 0.7 | 1.1 | 1.4 | April 1 to October 1 |
| Mesohaline  | 22% | 0.5 | 1.0 | 1.4 | 1.9 | April 1 to October 1 |

<sup>1</sup>Based on application of the formula  $PLW = 100\exp(-K_dZ)$ , the appropriate PLW criterion value and the selected application depth (Z) are inserted and the equation is solved for  $K_d$ . The generated  $K_d$  value is then converted to Secchi depth (in meters) using the conversion factor  $K_d = 1.45/\text{Secchi depth}$ .

(c) Table 2. SAV Acreage Restoration Goals.

| Segment Description <sup>1</sup>   | Segment Designator | SAV Acreage Restoration Goal | Secchi Application Depth |
|------------------------------------|--------------------|------------------------------|--------------------------|
| Northern Chesapeake Bay            | CB1TF2             | 12,149                       | 2 meters                 |
| Northern Chesapeake Bay            | CB1TF1             | 754                          | 1.0 meters               |
| Lower Pocomoke River Mesohaline    | POCMH              | 877 <sup>2</sup>             | 1.0 meters               |
| Manokin River Mesohaline           | MANMH1             | 4,294                        | 2.0 meters               |
| Manokin River Mesohaline           | MANMH2             | 59                           | 0.5 meters               |
| Big Annemessex River Mesohaline    | BIGMH1             | 2,021                        | 2.0 meters               |
| Big Annemessex River Mesohaline    | BIGMH2             | 22                           | 0.5 meters               |
| Tangier Sound Mesohaline           | TANMH1             | 24,683 <sup>2</sup>          | 2.0 meters               |
| Tangier Sound Mesohaline           | TANMH2             | 74                           | 0.5 meters               |
| Middle Nanticoke River Oligohaline | NANOH              | 12                           | 0.5 meters               |
| Lower Nanticoke River Mesohaline   | NANMH              | 3                            | 0.5 meters               |
| Wicomico River Mesohaline          | WICMH              | 3                            | 0.5 meters               |
| Fishing Bay Mesohaline             | FSBMH              | 197                          | 0.5 meters               |
| Middle Choptank River Oligohaline  | CHOOH              | 72                           | 0.5 meters               |
| Lower Choptank River Mesohaline    | CHOMH2             | 1,621                        | 1.0 meters               |
| Mouth of Choptank River Mesohaline | CHOMH1             | 8,184                        | 2.0 meters               |
| Little Choptank River Mesohaline   | LCHMH              | 4,076                        | 2.0 meters               |
| Honga River Mesohaline             | HNGMH              | 7,761                        | 2.0 meters               |
| Eastern Bay                        | EASMH              | 6209                         | 2.0 meters               |
| Middle Chester River Oligohaline   | CHSOH              | 77                           | 0.5 meters               |
| Lower Chester River Mesohaline     | CHSMH              | 2,928                        | 1.0 meters               |
| Chesapeake & Delaware (C&D) Canal  | C&DOH              | 7                            | 0.5 meters               |
| Northeast River Tidal Fresh        | NORTF              | 89                           | 0.5 meters               |
| Bohemia River Oligohaline          | BOHOH              | 354                          | 0.5 meters               |
| Elk River Oligohaline              | ELKOH1             | 1,844                        | 2.0 meters               |
| Elk River Oligohaline              | ELKOH2             | 190                          | 0.5 meters               |
| Sassafras River Oligohaline        | SASOH1             | 1,073                        | 2.0 meters               |
| Sassafras River Oligohaline        | SASOH2             | 95                           | 0.5 meters               |
| Bush River Oligohaline             | BSHOH              | 350                          | 0.5 meters               |
| Gunpowder River Oligohaline        | GUNOH2             | 572                          | 2.0 meters               |
| Mouth of Gunpowder River           | GUNOH1             | 1,860                        | 0.5 meters               |
| Middle River Oligohaline           | MIDOH              | 879                          | 2.0 meters               |
| Patapsco River Mesohaline          | PATMH              | 389                          | 1.0 meters               |
| Magothy River Mesohaline           | MAGMH              | 579                          | 1.0 meters               |

|                                   |        |                    |            |
|-----------------------------------|--------|--------------------|------------|
| Severn River Mesohaline           | SEVMH  | 455                | 1.0 meters |
| South River Mesohaline            | SOUTMH | 479                | 1.0 meters |
| Rhode River Mesohaline            | RHDMH  | 60                 | 0.5 meters |
| West River Mesohaline             | WSTMH  | 238                | 0.5 meters |
| Upper Patuxent River Tidal Fresh  | PAXTF  | 205                | 0.5 meters |
| Middle Patuxent River Oligohaline | PAXOH  | 115                | 0.5 meters |
| Lower Patuxent River Mesohaline   | PAXMH1 | 1,459              | 2.0 meters |
| Lower Patuxent River Mesohaline   | PAXMH2 | 172                | 0.5 meters |
| Lower Patuxent River Mesohaline   | PAXMH4 | 1                  | 0.5 meters |
| Lower Patuxent River Mesohaline   | PAXMH5 | 2                  | 0.5 meters |
| Lower Potomac River Tidal Fresh   | POTTF  | 2,142 <sup>2</sup> | 2.0 meters |
| Piscataway Creek Tidal Fresh      | PISTF  | 789                | 2.0 meters |
| Mattawoman Creek Tidal Fresh      | MATTF  | 792                | 1.0 meters |
| Lower Potomac River Oligohaline   | POTOH1 | 1,387 <sup>2</sup> | 2.0 meters |
| Lower Potomac River Oligohaline   | POTOH2 | 262                | 1.0 meters |
| Lower Potomac River Oligohaline   | POTOH3 | 1,153              | 1.0 meters |
| Lower Potomac River Mesohaline    | POTMH  | 7,088 <sup>2</sup> | 1.0 meters |
| Upper Chesapeake Bay              | CB2OH  | 705                | 0.5 meters |
| Upper Central Chesapeake Bay      | CB3MH  | 1,370              | 0.5 meters |
| Middle Central Chesapeake Bay     | CB4MH  | 2,533              | 2.0 meters |
| Lower Central Chesapeake Bay      | CB5MH  | 8,270 <sup>2</sup> | 2.0 meters |

<sup>1</sup> The segments Middle Pocomoke Oligohaline (POCOH-application depth = 0.5 meters), Upper Chester River Tidal Fresh (CHSTP-application depth = 0.5 meters), Back River Oligohaline (BACOH-application depth = 0.5 meters), and West Branch Patuxent River (WBRTF-application depth = 0.5 meters), and Lower Patuxent River Mesohaline Subsegments 3 and 6 (PAXMH3 & PAXMH6-application depths = 0.5 meters), and the Anacostia River Tidal Fresh (ANATF-application depth = 0.5 meters) are not listed above because the SAV Restoration goal for each segment is 0 acres, based on the required historical SAV presence criteria used to set the restoration goal for each segment. These segments have been assigned a water clarity criteria and application depth. Attainment of the shallow-water designated use will be determined using the method outlined in §C(9)(a)(i)—(iii) and (c) of this regulation.

<sup>2</sup>Maryland portion of the segment.

(d) SAV No Grow Zones. Certain Chesapeake Bay segments contain areas designated as shallow water use that are not suitable for growth of submerged aquatic vegetation due to natural conditions. Figures V-1 to V-12 of the "Technical Support Document for Identification of Chesapeake Bay Designated Uses and Attainability (EPA 903-R-04-006)" which is incorporated by reference, indicate the SAV No Grow Zones.

(c) Implementation. The attainment of the water clarity criteria that apply to the seasonal shallow-water submerged aquatic vegetation use subcategory in the Chesapeake Bay and tidally influenced tributary waters will be determined consistent with the guidelines documented within the 2003 U.S. Environmental Protection Agency publication "Ambient Water Quality Criteria for Dissolved Oxygen, Water Clarity and Chlorophyll a for the Chesapeake Bay and its Tidal Tributaries (EPA 903-R-04-005)" the "Ambient Water Quality Criteria for Dissolved Oxygen, Water Clarity and Chlorophyll a for the Chesapeake Bay and its Tidal Tributaries-2004 Addendum (EPA903-R-04-005)", and the Technical Support Document for Identification of Chesapeake Bay Designated Uses and Attainability-2004 Addendum (EPA 903-R-04-006) which are incorporated by reference.

(10) Chlorophyll a. Concentrations of chlorophyll a in free-floating microscopic aquatic plants (algae) may not exceed levels that result in ecologically undesirable consequences that would render tidal waters unsuitable for designated uses.

(11) Compliance Schedules for Protection of Downstream Uses in Tidal Waters.

(a) The compliance schedule provisions of COMAR 26.08.04.02C are applicable to discharge permits issued to existing dischargers which contain new or revised effluent limitations based on water quality standards contained in §C(8) and (9) of this regulation.

(b) An upstream state issuing discharge permits to existing dischargers which contain new or revised effluent limitations based on the water quality standards contained in §C(8) and (9) of this regulation may apply the compliance schedule provisions of COMAR 26.08.04.02C.

C-1. Criteria for Use II—P Waters—Support of Estuarine and Marine Aquatic Life and Shellfish Harvesting and Public Water Supplies. The following criteria apply:

- (1) The criteria for Use II waters in §1-8, 9(a-c), 10 and 11; and
- (2) All toxic substance criteria:
- (a) For protection of fresh water and freshwater-adapted estuarine aquatic organisms apply; and
- (b) To protect public water supplies and the wholesomeness of fish and shellfish for human consumption.

D. Criteria for Use III Waters—Nontidal Cold Water.

- (1) Bacteriological—same as Use I waters.
- (2) Dissolved Oxygen. The dissolved oxygen concentration may not be less than 5 milligrams/liter at any time, with a minimum daily average of not less than 6 milligrams/liter.
- (3) Temperature.
- (a) The maximum temperature outside the mixing zone determined in accordance with Regulation .05 of this chapter or COMAR 26.08.03.03—.05 may not exceed 68°F (20°C) or the ambient temperature of the surface waters, whichever is greater.
- (b) Ambient temperature—Same as Use I.
- (c) A thermal barrier that adversely affects salmonid fish may not be established.
- (d) It is the policy of the State that riparian forest buffer adjacent to Use III waters shall be retained whenever possible to maintain the temperatures essential to meeting this criterion.
- (4) pH—same as Use I waters.
- (5) Turbidity—same as Use I waters.
- (6) Color—Same as Use I waters.
- (7) Total Residual Chlorine (TRC). Except as provided in COMAR 26.08.03.06, the Department may not issue a permit allowing the use of chlorine or chlorine-containing compounds in the treatment of wastewaters discharging to Use III and Use III-P waters.
- (8) Toxic Substance Criteria. All toxic substance criteria to protect:
  - (a) Fresh water aquatic organisms apply; and
  - (b) The wholesomeness of fish for human consumption apply.

E. Criteria for Use III-P Waters—Nontidal Cold Water and Public Water Supplies.

- (1) Exception. Authorized operation of the Little Seneca Creek Dam means that all operational activities permitted are met under the conditions of a dam operating permit issued by the Department of Natural Resources under Natural Resources Article, §§8-801—8-814, Annotated Code of Maryland, and COMAR 08.05.03. Injury resulting from the authorized operation of Little Seneca Creek Dam to the Use III natural trout fishery recognized in the stream use designation assigned to Little Seneca Creek in Regulation .08 of this chapter is not considered a violation of this chapter.

(2) The following criteria apply:

(a) The criteria for Use III waters in §D(1)—(7); and

(b) All toxic substance criteria to protect:

(i) Fresh water aquatic organisms, and

(ii) Public water supplies and the wholesomeness of fish for human consumption.

F. Criteria for Use IV Waters—Recreational Trout Waters.

(1) Bacteriological—same as Use I waters.

(2) Dissolved oxygen—same as Use I waters.

(3) Temperature.

(a) The maximum temperature outside the mixing zone determined in accordance with Regulation .05 of this chapter or COMAR 26.08.03.03—.05 may not exceed 75°F (23.9°C) or the ambient temperature of the surface waters, whichever is greater.

(b) Ambient temperature—Same as Use I.

(c) A thermal barrier that adversely affects salmonid fish may not be established.

(d) It is the policy of the State that riparian forest buffer adjacent to Use IV waters shall be retained whenever possible to maintain the temperatures essential to meeting this criterion.

(4) pH—same as Use I waters.

(5) Turbidity—same as Use I waters.

(6) Color—same as for Use I waters.

(7) Toxic Substance Criteria. All toxic substance criteria to protect:

(a) Fresh water aquatic organisms apply; and

(b) The wholesomeness of fish for human consumption apply.

G. Criteria for Use IV-P Waters—Recreational Trout Waters and Public Water Supplies. The following criteria apply:

(1) The criteria for Use IV waters in §F(1)—(6); and

(2) Toxic Substance Criteria. All toxic substance criteria to protect:

(a) Fresh water aquatic organisms, and

(b) Public water supplies and the wholesomeness of fish for human consumption.

### **26.08.02.03-4 Biological Water Quality Criteria.**

A. Quantitative assessments of biological communities in streams (biological criteria) may be used separately or in conjunction with the chemical and physical criteria promulgated in this chapter to assess whether water quality is consistent with the purposes and uses in Regulations .01 and .02 of this chapter.

B. The results of the quantitative assessments of biological communities shall be used for purposes of water quality assessment, including, but not limited to, those assessments required by §§303(d) and 305(b) of the federal Clean Water Act (33 U.S.C. §§1313(d) and 1315(b)).

C. These assessments shall use documented methods that have been subject to technical review, produce consistent and repeatable results, and are objectively interpretable.

D. In using biological criteria to determine whether aquatic life uses are being met, the Department shall allow for the uncertainty and natural variability in environmental monitoring results by using established quantitative and statistical methodologies to establish the appropriate level of uncertainty for these determinations.

E. The Department shall determine whether the application and interpretation of the assessment method are appropriate. In those instances where the Department determines the assessment method is not appropriate, it will provide its justification for that determination.

### **26.08.02.04 Anti-Degradation Policy.**

A. Waters of this State shall be protected and maintained for existing uses and the basic uses of water contact recreation, fishing, protection of aquatic life and wildlife, and agricultural and industrial water supply as identified in Use I.

B. Certain waters of this State possess an existing quality that is better than the water quality standards established for them. The quality of these waters shall be maintained unless:

- (1) The Department determines a change in quality is justifiable as a result of necessary economic or social development; and
- (2) The change will not diminish uses made of, or presently existing, in these waters.

C. To accomplish the objective of maintaining existing water quality:

- (1) New and existing point sources shall achieve the highest applicable statutory and regulatory effluent requirements; and
- (2) Nonpoint sources shall achieve all cost effective and reasonable best management practices for nonpoint source control.

D. The Department shall discourage the downgrading of any stream from a designated use with more stringent criteria to one with less stringent criteria. Downgrading may only be considered if:

- (1) The designated use is not attainable because of natural causes;
- (2) The designated use is not attainable because of irretrievable man-induced conditions; or
- (3) Controls more stringent than the effluent limitations and national performance standards mandated by the Federal Act, and required by the Department, would result in substantial and widespread economic and social impact.

E. The Department shall provide public notice and opportunity for a public hearing on the proposed change before:

- (1) Permitting a change in high quality waters; or
- (2) Downgrading any stream use designation.

F. Water which does not meet the standards established for it shall be improved to meet the standards.

#### **26.08.02.04-1 Antidegradation Policy Implementation Procedures.**

A. Where water quality is better than the minimum requirements specified by the water quality standards, that water quality shall be maintained. These waters are listed by the Department as Tier II waters. An antidegradation review of new or proposed amendments to water and sewer plans (county plans) and discharge permits is required to assure consistency with antidegradation requirements.

B. General. An applicant for proposed amendments to county plans or discharge permits for discharge to Tier II waters that will result in a new, or an increased, permitted annual discharge of pollutants and a potential impact to water quality, shall evaluate alternatives to eliminate or reduce discharges or impacts. If impacts are unavoidable, an applicant shall prepare and document a social and economic justification. The Department shall determine, through a public process, whether these discharges can be justified.

C. Compilation and Maintenance of the List of High Quality Waters. When the water quality of a water body is better than that required by water quality standards to support the existing and designated uses, the Department shall list the water body as a Tier II water body. All readily available information may be considered to determine a listing. The Department shall compile and maintain a public list of the waters identified as Tier II waters. Tier II listings shall be made only for those specific characteristics for which monitoring data indicates the water body exceeds numeric water quality criteria or thresholds established under the narrative standards for biocriteria. The Department shall consider information available from the categories listed under §D(2) and (3) of this regulation.

D. Waters Not Listed as Tier II.

(1) All water bodies not listed as Tier II or as Outstanding National Resource Waters (Tier III, described and defined in Regulation .04-2 of this chapter) are Tier I.

(2) Waters That May Not be Listed as Tier II. Water bodies included in the List of Impaired Waters (303(d) List) are not Tier II waters for the impairing substance.

(3) Waters may be listed as Tier II, if the exclusion under §D(2) of this regulation is not applicable and where:

(a) Existing uses are met; and

(b) One of the following:

(i) Measured water quality characteristics for which numeric criteria have been promulgated are significantly better than the water quality criteria specified in Regulations .03—.03-3 of this chapter; or

(ii) Biological assessment data indicate water quality is within 20 percent of the maximum attainable value of the index of biological integrity.

(4) Significantly better is evaluated statistically to demonstrate at least a 90 percent certainty that the mean of the available data is better than the applicable standard (for example, the criterion is outside the outer bound of the 90 percent confidence interval).

E. Designation for Specific Water Quality Measures. Where a water body is designated a Tier II water based on a specific water quality measure, potential impacts to only that specific characteristic shall be subject to Tier II review. For example, where a water body is designated Tier II because of high dissolved oxygen, only potential impacts to dissolved oxygen are subject to Tier II review.

F. Need for Tier II Antidegradation Review.

(1) Permits. Before submitting an application for a new discharge permit or major modification of an existing discharge permit (for example, expansion), the discharger or applicant shall determine whether the receiving water body is Tier II or, if a Tier II determination is pending, by consulting the list of Tier II waters.

(2) Water and Sewer Plans (County Plans). As part of its continuing planning process, the Department shall review proposed amendments to county plans for any new or major modifications to discharges to Tier II bodies of water. If a proposed amendment to

a County Plan results in a new discharge or a major modification of an existing discharge to a Tier II water, the applicant shall perform a Tier II antidegradation review.

(3) Exemptions. The requirement to perform a Tier II antidegradation review does not apply to individual discharges of treated sanitary wastewater of less than 5,000 gallons per day, if all of the existing and current uses continue to be met.

#### G. Tier II Antidegradation Review.

(1) If a Tier II antidegradation review is required, the applicant shall provide an analysis of reasonable alternatives that do not require direct discharge to a Tier II water body (no-discharge alternative). The analysis shall include cost data and estimates to determine the cost effectiveness of the alternatives.

(2) If a cost effective alternative to direct discharge is reasonable, the alternative is required as a condition of the discharge permit or amendment to the county plan.

(3) If the Department determines that the alternatives that do not require direct discharge to a Tier II water body are not cost effective, the applicant shall:

(a) Provide the Department with plans to configure or structure the discharge to minimize the use of the assimilative capacity of the water body, which is the difference between the water quality at the time the water body was designated as Tier II (baseline) and the water quality criterion; and

(b) If an impact cannot be avoided, or no assimilative capacity remains as described in §G(3)(a) of this regulation, provide the Department with a social and economic justification for permitting limited degradation of the water quality.

(4) An applicant shall update an antidegradation review when applying for a new permit or major modification to an existing permit.

#### H. Potential Determinations Resulting from Antidegradation Reviews.

(1) If there is a cost-effective alternative to direct discharge, the applicant shall implement the no discharge alternative and it shall be a condition of the discharge permit.

(2) If there is no cost-effective alternative to direct discharge, but there is potential for further minimization of the use of assimilative capacity, the applicant shall revise the initial application to further minimize the use of assimilative capacity.

(3) If there is no cost-effective, no-discharge alternative, and minimization of the use of assimilative capacity is adequate, but the social and economic justification (SEJ) is not adequately performed, the applicant shall revise the SEJ.

(4) If there is no cost-effective alternative to direct discharge, minimization of the use of assimilative capacity is adequate, the SEJ is adequately performed but does not justify the water quality impact, the proposed amendment to the county plan or discharge permit application shall be denied.

(5) If there is no cost-effective alternative to direct discharge, all reasonable efforts have been made to minimize the use of assimilative capacity, and the SEJ is adequate and justifies the discharge, the proposed amendment to the county plan or discharge permit shall be granted subject to other applicable requirements.

I. Wetlands Permits and Water Quality Certifications. Maryland's wetlands and waterways regulatory process, governed by the Tidal Wetlands (COMAR 26.24.01—26.24.05), Nontidal Wetlands (COMAR 26.23.01—26.23.06), and Waterway Construction (COMAR 26.17.04) regulations, satisfies the requirements of this regulation.

#### J. Social and Economic Justification (SEJ).

(1) An SEJ shall be submitted if:

(a) No cost effective alternative to the discharge is available; or

(b) The cumulative degradation resulting from nonpoint source pollution and any other permitted discharges would diminish water quality.

(2) To allow for natural variability, water quality shall be considered diminished only if the assimilative capacity as defined in §G(3)(a) of this regulation is cumulatively reduced by more than 25 percent from the baseline water quality determined when the water body was listed as Tier II.

#### K. Demonstrating Social and Economic Justification for an Impact to Tier II Waters.

(1) In order to promote compact development, maintain habitat and open lands, and minimize water impacts in undeveloped areas, the requirement for social and economic justification is met if the following demonstrations are made:

(a) The watershed affecting the Tier II water is located in a priority funding area as defined in State Finance and Procurement Article, §5-7B-02, Annotated Code of Maryland;

(b) The Department determines, in consultation with the Maryland Department of Planning, that the local jurisdiction in which the watershed affecting Tier II waters are located, is using to the extent reasonably practical, innovative development approaches to minimize impacts to water quality from development;

(c) Physical development after the date of the Tier II listing is necessary to accommodate the projected growth within the watershed, and use of innovative development approaches are maximized to the extent reasonably practicable to encourage redevelopment, reuse and infill development; and

(d) If the Department of Planning's growth projections for the watershed affecting the Tier II waters demonstrate that additional physical development of undeveloped land is required to accommodate the projected growth and that development is consistent with the applicable county master plan.

(2) The approaches described in §K(1)(b) of this regulation include, but are not limited to, innovative stormwater management and sediment and erosion control design practices, green building design techniques, nutrient removal technology for septic systems, innovative technologies designed to reduce point source discharges of pollutants, uniform building codes designed to remove impediments to rehabilitation projects, model infill development guidelines designed by the Maryland Department of Planning, and transit-oriented development.

#### L. Components of the Social and Economic Justification.

(1) Components of the SEJ may vary depending on factors including, but not limited to, the extent and duration of the impact from the proposed discharge and the existing uses of the water body.

(2) The economic analyses shall include impacts that result from treatment beyond the costs to meet technology-based or water quality-based requirements.

(3) The economic analysis shall address the cost of maintaining high water quality in Tier II waters and the economic benefit of maintaining Tier II waters.

(4) The economic analysis shall determine whether the costs of the pollution controls needed to maintain the Tier II water would limit growth or development in the watershed including the Tier II water.

#### M. Department Responsibilities.

(1) The Department shall determine whether the SEJ demonstrates that the costs of water pollution controls are reasonable and would not limit development or growth and, if not, shall determine whether lowering of the water quality is necessary for development or growth to take place in the watershed.

(2) The Department shall determine whether the SEJ demonstrates that the impact to water quality is necessary for development or growth to take place in the watershed. Evaluation of the SEJ shall consider the relative magnitude of costs and benefits of development, recognizing the difficulty in quantifying benefits, and the extent to which denial of the amendment or permit would substantially impact future development within the watershed.

(3) The Department shall propose a tentative determination to either issue or deny the permit application. If the tentative determination is made to issue a permit, the notice of tentative determination shall state that these waters are designated as Tier II and, if applicable, that a social and economic justification is available for review.

(4) Existing in-stream water uses and the level of water quality necessary to protect existing uses shall be maintained and protected.

(5) All required point and nonpoint source controls under State statutes and regulations shall be achieved.

#### N. Public Participation.

(1) Public participation for a permit to discharge to a Tier II water is the same as that required for any permit subject to the Administrative Procedure Act or the requirements of Environment Article, Title 1, Subtitle 6, Annotated Code of Maryland.

(2) If an SEJ is not required, the public notice shall reflect the Tier II status of the waterbody and note that an SEJ is not required and note the justification.

#### O. List of Tier II Waters.

##### *County Allegany*

| <i>Stream Name</i> | <i>12 Digit Code</i> | <i>From lat</i> | <i>From long</i> | <i>To lat</i> | <i>To long</i> |           |      | <i>Baseline:</i>  |
|--------------------|----------------------|-----------------|------------------|---------------|----------------|-----------|------|-------------------|
| FIFTEENMILE CR     | 021405110135         | 39.6385235      | 78.3340629       | 39.640189     | 78.397193      | Fish IBI: | 4.71 | Benthic IBI: 4.11 |
| SIDELING HILL CR   | 021405100148         | 39.5474530      | 77.6269254       | 39.661083     | 78.362330      | Fish IBI: | 4.43 | Benthic IBI: 4.11 |
| TOWN CR            | 021405120128         | 39.6307206      | 78.3858925       | 39.644206     | 78.568355      | Fish IBI: | 5    | Benthic IBI: 4.33 |
| TOWN CR            | 021405120129         | 39.6265814      | 78.5680486       | 39.644206     | 78.568355      | Fish IBI: | 4.43 | Benthic IBI: 4.78 |

##### *County Baltimore*

| <i>Stream Name</i> | <i>12 Digit Code</i> | <i>From lat</i> | <i>From long</i> | <i>To lat</i> | <i>To long</i> |           |      | <i>Baseline:</i>  |
|--------------------|----------------------|-----------------|------------------|---------------|----------------|-----------|------|-------------------|
| KEYSERS RUN        | 021309071048         | 39.4717489      | 76.8809392       | 39.469122     | 76.838922      | Fish IBI: | 4.11 | Benthic IBI: 4.33 |
| TIMBER RUN         | 021309071048         | 39.5521408      | 76.5346845       | 39.471751     | 76.880935      | Fish IBI: | 4.33 | Benthic IBI: 4.11 |

##### *County Calvert*

| <i>Stream Name</i> | <i>12 Digit Code</i> | <i>From lat</i> | <i>From long</i> | <i>To lat</i> | <i>To long</i> |           |      | <i>Baseline:</i>  |
|--------------------|----------------------|-----------------|------------------|---------------|----------------|-----------|------|-------------------|
| LYON'S CR          | 021311020910         | 38.7668432      | 76.6335401       | 38.768064     | 76.621989      | Fish IBI: | 4.75 | Benthic IBI: 4.14 |

##### *County Carroll*

| <i>Stream Name</i>   | <i>12 Digit Code</i> | <i>From lat</i> | <i>From long</i> | <i>To lat</i> | <i>To long</i> |           |      | <i>Baseline:</i>  |
|----------------------|----------------------|-----------------|------------------|---------------|----------------|-----------|------|-------------------|
| EAST BR PATAPSCO     | 021309071052         | 39.4691229      | 76.8389172       | 39.574327     | 76.894622      | Fish IBI: | 4.11 | Benthic IBI: 4.11 |
| GILLIS FALLS         | 021309081025         | 39.3732557      | 77.0119452       | 39.385894     | 77.087436      | Fish IBI: | 4.11 | Benthic IBI: 4.11 |
| MIDDLE RUN           | 021309071056         | 39.5326464      | 76.9267553       | 39.492059     | 76.944636      | Fish IBI: | 4.11 | Benthic IBI: 4.56 |
| PINEY BR             | 021309081026         | 39.3726992      | 77.0122673       | 39.380420     | 77.016395      | Fish IBI: | 4.11 | Benthic IBI: 4.11 |
| PINEY RUN            | 021309081021         | 39.3520412      | 76.8961018       | 39.381585     | 76.942900      | Fish IBI: | 4.78 | Benthic IBI: 4.11 |
| ROARING RUN          | 021309071048         | 39.5372452      | 76.8933651       | 39.510004     | 76.887330      | Fish IBI: | 4.11 | Benthic IBI: 4.11 |
| UT LITTLE MORGAN RUN | 021309071049         | 39.4426721      | 77.0042181       | 39.446558     | 77.026127      | Fish IBI: | 4.33 | Benthic IBI: 4.33 |

##### *County Cecil*

| <i>Stream Name</i>        | <i>12 Digit Code</i> | <i>From lat</i> | <i>From long</i> | <i>To lat</i> | <i>To long</i> |           |      | <i>Baseline:</i> |      |
|---------------------------|----------------------|-----------------|------------------|---------------|----------------|-----------|------|------------------|------|
| LITTLE NORTHEAST CR       | 021306080377         | 39.7263829      | 75.9548780       | 39.722842     | 75.955025      | Fish IBI: | 4.11 | Benthic IBI:     | 4.33 |
| NORTHEAST CR              | 021306080379         | 39.6670901      | 75.9347924       | 39.720604     | 76.001514      | Fish IBI: | 4.11 | Benthic IBI:     | 4.11 |
| PRINCIPIO CR UT2          | 021306090380         | 39.7057977      | 75.9995699       | 39.607391     | 76.030516      | Fish IBI: | 4.11 | Benthic IBI:     | 4.33 |
| WEST BR (OF NORTHEAST CR) | 021306080378         | 39.6670901      | 75.9347924       | 39.705469     | 75.965632      | Fish IBI: | 4.56 | Benthic IBI:     | 4.33 |

**County Charles**

| <i>Stream Name</i>   | <i>12 Digit Code</i> | <i>From lat</i> | <i>From long</i> | <i>To lat</i> | <i>To long</i> |           |      | <i>Baseline:</i> |      |
|----------------------|----------------------|-----------------|------------------|---------------|----------------|-----------|------|------------------|------|
| HOGHOLE RUN          | 021401090773         | 38.5178652      | 77.0365339       | 38.504746     | 77.021963      | Fish IBI: | 4.25 | Benthic IBI:     | 4.71 |
| MATTAWOMAN CR UT3    | 021401110780         | 38.5359972      | 77.2323471       | 38.515528     | 77.213088      | Fish IBI: | 4.25 | Benthic IBI:     | 4.71 |
| MILL RUN             | 021401100779         | 38.4991578      | 77.0844955       | 38.476536     | 77.084079      | Fish IBI: | 4.25 | Benthic IBI:     | 4.71 |
| OLD WOMANS RUN       | 021401110784         | 38.5961915      | 77.0556773       | 38.596486     | 77.029946      | Fish IBI: | 4.5  | Benthic IBI:     | 4.43 |
| PINEY BR             | 021401110785         | 38.6381620      | 76.9543774       | 37.667647     | 76.983014      | Fish IBI: | 4.25 | Benthic IBI:     | 4.43 |
| REEDER RUN           | 021401020789         | 38.5359972      | 77.2323471       | 38.515528     | 77.213088      | Fish IBI: | 4.25 | Benthic IBI:     | 4.14 |
| SWANSON CR           | 021311010893         | 38.5889202      | 76.7465912       | 38.607005     | 76.746311      | Fish IBI: | 4.75 | Benthic IBI:     | 4.14 |
| SWANSON CR           | 021311010892         | 38.5629725      | 76.7562304       | 38.564984     | 76.760263      | Fish IBI: | 4.5  | Benthic IBI:     | 4.14 |
| WARDS RUN            | 021401100778         | 38.5098175      | 77.1483692       | 38.517840     | 77.136662      | Fish IBI: | 4.75 | Benthic IBI:     | 4.14 |
| WOLF DEN BRANCH      | 021401080769         | 38.6228890      | 76.8203762       | 38.635762     | 76.821364      | Fish IBI: | 4.25 | Benthic IBI:     | 4.43 |
| ZEKIAH SWAMP RUN     | 021401080765         | 38.5654326      | 76.8497587       | 38.589448     | 76.841180      | Fish IBI: | 4.25 | Benthic IBI:     | 4.14 |
| ZEKIAH SWAMP RUN     | 021401080765         | 38.5661005      | 76.8496596       | 38.563894     | 76.850707      | Fish IBI: | 4.25 | Benthic IBI:     | 4.71 |
| ZEKIAH SWAMP RUN     | 021401080769         | 38.6228464      | 76.8203866       | 38.633967     | 76.799281      | Fish IBI: | 4.25 | Benthic IBI:     | 4.14 |
| ZEKIAH SWAMP RUN UT1 | 021401080762         | 38.5222627      | 76.8757148       | 38.527393     | 76.892055      | Fish IBI: | 4.75 | Benthic IBI:     | 4.14 |
| ZEKIAH SWAMP RUN UT3 | 021401080760         | 38.4949574      | 76.8925081       | 38.502916     | 76.920114      | Fish IBI: | 4.5  | Benthic IBI:     | 4.14 |

**County Dorchester**

| <i>Stream Name</i> | <i>12 Digit Code</i> | <i>From lat</i> | <i>From long</i> | <i>To lat</i> | <i>To long</i> |           |      | <i>Baseline:</i> |      |
|--------------------|----------------------|-----------------|------------------|---------------|----------------|-----------|------|------------------|------|
| DAVIS MILLPOND BR  | 021303060607         | 38.6747875      | 75.7731023       | 38.664897     | 75.757583      | Fish IBI: | 4.75 | Benthic IBI:     | 4.14 |

**County Frederick**

| <i>Stream Name</i> | <i>12 Digit Code</i> | <i>From lat</i> | <i>From long</i> | <i>To lat</i> | <i>To long</i> |           |      | <i>Baseline:</i> |      |
|--------------------|----------------------|-----------------|------------------|---------------|----------------|-----------|------|------------------|------|
| FRIENDS CR         | 021403030258         | 39.6105825      | 77.4623875       | 39.710606     | 77.424259      | Fish IBI: | 4.43 | Benthic IBI:     | 4.11 |
| HUNTING CR         | 021403030251         | 39.3622742      | 77.0653265       | 39.599216     | 77.405096      | Fish IBI: | 4.14 | Benthic IBI:     | 4.11 |

|                                   |                      |                 |                  |               |                |              |       |                  |      |
|-----------------------------------|----------------------|-----------------|------------------|---------------|----------------|--------------|-------|------------------|------|
| LITTLE FISHING CR                 | 021403030243         | 39.5650310      | 77.5042707       | 39.568423     | 77.461600      | Fish<br>IBI: | 4.43  | Benthic<br>IBI:  | 4.56 |
| <i>County</i> <i>Garrett</i>      |                      |                 |                  |               |                |              |       |                  |      |
| <i>Stream Name</i>                | <i>12 Digit Code</i> | <i>From lat</i> | <i>From long</i> | <i>To lat</i> | <i>To long</i> |              |       | <i>Baseline:</i> |      |
| BEAR CR                           | 050202010016         | 39.6500017      | 79.2889779       | 39.564898     | 79.321745      | Fish<br>IBI: | 4.14  | Benthic<br>IBI:  | 4.78 |
| BEAR CR                           | 050202010018         | 39.6500753      | 79.2889204       | 39.651003     | 79.300051      | Fish<br>IBI: | 4.14  | Benthic<br>IBI:  | 4.11 |
| BEAR CR                           | 050202010018         | 39.6503493      | 79.2903477       | 39.650970     | 79.299167      | Fish<br>IBI: | 4.14  | Benthic<br>IBI:  | 4.56 |
| BLACK RUN                         | 050202020025         | 39.5443563      | 79.2287138       | 39.424256     | 79.320416      | Fish<br>IBI: | 4.43  | Benthic<br>IBI:  | 4.78 |
| CRABTREE CR                       | 021410060074         | 39.4905038      | 79.1752754       | 39.506240     | 79.153859      | Fish<br>IBI: | 5     | Benthic<br>IBI:  | 5    |
| DOUBLE LICK RUN                   | 021410060076         | 39.5414801      | 79.2139290       | 39.537546     | 79.218995      | Fish<br>IBI: | 4.14  | Benthic<br>IBI:  | 4.33 |
| LITTLE BEAR CR                    | 050202010016         | 39.6577695      | 79.2523120       | 39.657631     | 79.268689      | Fish<br>IBI: | 4.14  | Benthic<br>IBI:  | 4.11 |
| LITTLE LAUREL RUN                 | 050202040033         | 39.6464353      | 79.1815245       | 39.639405     | 79.156224      | Fish<br>IBI: | 4.428 | Benthic<br>IBI:  | 5    |
| MIDDLE FORK RUN                   | 021410060076         | 39.5120592      | 79.1622835       | 39.513865     | 79.156150      | Fish<br>IBI: | 4.43  | Benthic<br>IBI:  | 4.33 |
| MIDDLEFORK RUN                    | 021410060076         | 39.5120592      | 79.1622835       | 39.513865     | 79.156150      | Fish<br>IBI: | 4.14  | Benthic<br>IBI:  | 4.33 |
| MILL RUN                          | 050202010021         | 39.7150996      | 79.346839        | 39.718468     | 79.300968      | Fish<br>IBI: | 4.14  | Benthic<br>IBI:  | 4.56 |
| MILL RUN                          | 050202010021         | 39.7087673      | 79.3629424       | 39.714238     | 79.383890      | Fish<br>IBI: | 4.43  | Benthic<br>IBI:  | 4.78 |
| MILL RUN                          | 050202010021         | 39.7150996      | 79.3461683       | 39.718468     | 79.300968      | Fish<br>IBI: | 4.14  | Benthic<br>IBI:  | 4.56 |
| MILL RUN UT2                      | 050202010021         | 39.7163856      | 79.2721608       | 39.709191     | 79.348457      | Fish<br>IBI: | 4.43  | Benthic<br>IBI:  | 4.33 |
| MONROE RUN                        | 021410060078         | 39.6365542      | 79.1422298       | 39.548736     | 79.145090      | Fish<br>IBI: | 4.43  | Benthic<br>IBI:  | 4.56 |
| MONROE RUN                        | 021410060078         | 39.6365542      | 79.1422298       | 39.548736     | 79.145090      | Fish<br>IBI: | 4.14  | Benthic<br>IBI:  | 4.78 |
| NORTH BR CASSELMAN R UT1          | 050202040032         | 39.6407968      | 79.2091795       | 39.657063     | 79.204537      | Fish<br>IBI: | 4.14  | Benthic<br>IBI:  | 4.56 |
| PINEY CR                          | 050202040038         | 39.7210737      | 78.9605314       | 39.714894     | 78.950212      | Fish<br>IBI: | 4.43  | Benthic<br>IBI:  | 4.33 |
| POPLAR LICK RUN                   | 021410060079         | 39.5910657      | 79.1032448       | 39.583895     | 79.091551      | Fish<br>IBI: | 4.14  | Benthic<br>IBI:  | 4.78 |
| POPLAR LICK RUN                   | 021410060079         | 39.5910657      | 79.1032448       | 39.583895     | 79.091551      | Fish<br>IBI: | 4.43  | Benthic<br>IBI:  | 4.56 |
| PUZZLEY RUN                       | 050202010022         | 39.6902868      | 79.2286409       | 39.721848     | 79.232287      | Fish<br>IBI: | 4.14  | Benthic<br>IBI:  | 4.78 |
| SAVAGE R                          | 021410060077         | 39.5479379      | 79.1248754       | 39.561087     | 79.112183      | Fish<br>IBI: | 4.14  | Benthic<br>IBI:  | 4.33 |
| UN TRIB TO BEAR CR                | 050202010018         | 39.6556637      | 79.3385414       | 39.647953     | 79.340727      | Fish<br>IBI: | 4.43  | Benthic<br>IBI:  | 4.33 |
| UN TRIB TO LITTLE<br>YOUGHIOGHENY | 050202020025         | 39.4245164      | 79.3203183       | 39.436058     | 79.309482      | Fish<br>IBI: | 4.43  | Benthic<br>IBI:  | 4.11 |

**County Harford**

| <b>Stream Name</b>     | <b>12 Digit Code</b> | <b>From lat</b> | <b>From long</b> | <b>To lat</b> | <b>To long</b> |           |      | <b>Baseline:</b> |      |
|------------------------|----------------------|-----------------|------------------|---------------|----------------|-----------|------|------------------|------|
| DEER CR                | 021202020321         | 39.6222592      | 76.0620422       | 39.618492     | 76.168945      | Fish IBI: | 4.11 | Benthic IBI:     | 4.33 |
| DEER CR                | 021202020324         | 39.6031030      | 76.2491899       | 39.632150     | 76.411191      | Fish IBI: | 4.78 | Benthic IBI:     | 4.11 |
| DEER CR                | 021202020322         | 39.6195183      | 76.1836416       | 39.599288     | 76.268214      | Fish IBI: | 4.56 | Benthic IBI:     | 4.56 |
| LITTLE GUNPOWDER FALLS | 021308040298         | 39.4732300      | 76.4025299       | 39.481423     | 76.425369      | Fish IBI: | 4.33 | Benthic IBI:     | 4.56 |
| LITTLE GUNPOWDER FALLS | 021308040299         | 39.4814246      | 76.4253743       | 39.544186     | 76.532192      | Fish IBI: | 4.56 | Benthic IBI:     | 4.33 |
| OVERSHOT BR            | 021308040298         | 39.6177631      | 76.39935         | 39.473225     | 76.402197      | Fish IBI: | 4.33 | Benthic IBI:     | 4.33 |
| WET STONE BR           | 021202020327         | 39.6302031      | 76.4567140       | 39.647216     | 76.431814      | Fish IBI: | 4.33 | Benthic IBI:     | 4.78 |

**County Howard**

| <b>Stream Name</b>      | <b>12 Digit Code</b> | <b>From lat</b> | <b>From long</b> | <b>To lat</b> | <b>To long</b> |           |      | <b>Baseline:</b> |      |
|-------------------------|----------------------|-----------------|------------------|---------------|----------------|-----------|------|------------------|------|
| PATUXENT R MAINSTEM     | 021311080969         | 39.2685659      | 77.1309511       | 39.265870     | 77.102689      | Fish IBI: | 4.33 | Benthic IBI:     | 4.11 |
| SOUTH BR PATAPSCO R UT3 | 021309081020         | 39.3508127      | 76.9157642       | 39.320240     | 76.944205      | Fish IBI: | 4.33 | Benthic IBI:     | 4.78 |

**County Kent**

| <b>Stream Name</b>        | <b>12 Digit Code</b> | <b>From lat</b> | <b>From long</b> | <b>To lat</b> | <b>To long</b> |           |     | <b>Baseline:</b> |      |
|---------------------------|----------------------|-----------------|------------------|---------------|----------------|-----------|-----|------------------|------|
| EAST FORK LANGFORD CR UT2 | 021305060408         | 39.2107118      | 76.1336277       | 39.199062     | 76.116485      | Fish IBI: | 4.5 | Benthic IBI:     | 4.43 |

**County Montgomery**

| <b>Stream Name</b>  | <b>12 Digit Code</b> | <b>From lat</b> | <b>From long</b> | <b>To lat</b> | <b>To long</b> |           |      | <b>Baseline:</b> |      |
|---------------------|----------------------|-----------------|------------------|---------------|----------------|-----------|------|------------------|------|
| MAINSTEM PATUXENT R | 021311080969         | 39.2849168      | 77.1402462       | 39.288379     | 77.192891      | Fish IBI: | 4.78 | Benthic IBI:     | 4.33 |
| MAINSTEM PATUXENT R | 021311080969         | 39.2993897      | 77.1504554       | 39.311949     | 77.168226      | Fish IBI: | 4.56 | Benthic IBI:     | 4.11 |
| PATUXENT R MAINSTEM | 021311080969         | 39.2685659      | 77.1309511       | 39.265870     | 77.102689      | Fish IBI: | 4.33 | Benthic IBI:     | 4.11 |

**County Prince George's**

| <b>Stream Name</b> | <b>12 Digit Code</b> | <b>From lat</b> | <b>From long</b> | <b>To lat</b> | <b>To long</b> |           |      | <b>Baseline:</b> |      |
|--------------------|----------------------|-----------------|------------------|---------------|----------------|-----------|------|------------------|------|
| PISCATAWAY CR      | 021402030803         | 38.7308296      | 76.8754359       | 38.730414     | 73.862583      | Fish IBI: | 4.75 | Benthic IBI:     | 4.14 |

**County Queen Anne's**

| <b>Stream Name</b> | <b>12 Digit Code</b> | <b>From lat</b> | <b>From long</b> | <b>To lat</b> | <b>To long</b> |           |      | <b>Baseline:</b> |      |
|--------------------|----------------------|-----------------|------------------|---------------|----------------|-----------|------|------------------|------|
| ANDOVER BRANCH     | 021305100425         | 39.2301890      | 75.7836947       | 39.222685     | 75.771762      | Fish IBI: | 4.25 | Benthic IBI:     | 4.43 |
| BROWNS BR UT1      | 021305080403         | 39.1635510      | 75.9519760       | 39.159724     | 75.920870      | Fish IBI: | 4.5  | Benthic IBI:     | 4.43 |
| RED LION BR (1)    | 021305100419         | 39.2365490      | 75.9055737       | 39.227136     | 75.902188      | Fish IBI: | 4.5  | Benthic IBI:     | 4.14 |
| RED LION BR (2)    | 021305100419         | 39.2027188      | 75.8970526       | 39.183700     | 75.894261      | Fish IBI: | 4.75 | Benthic IBI:     | 4.14 |

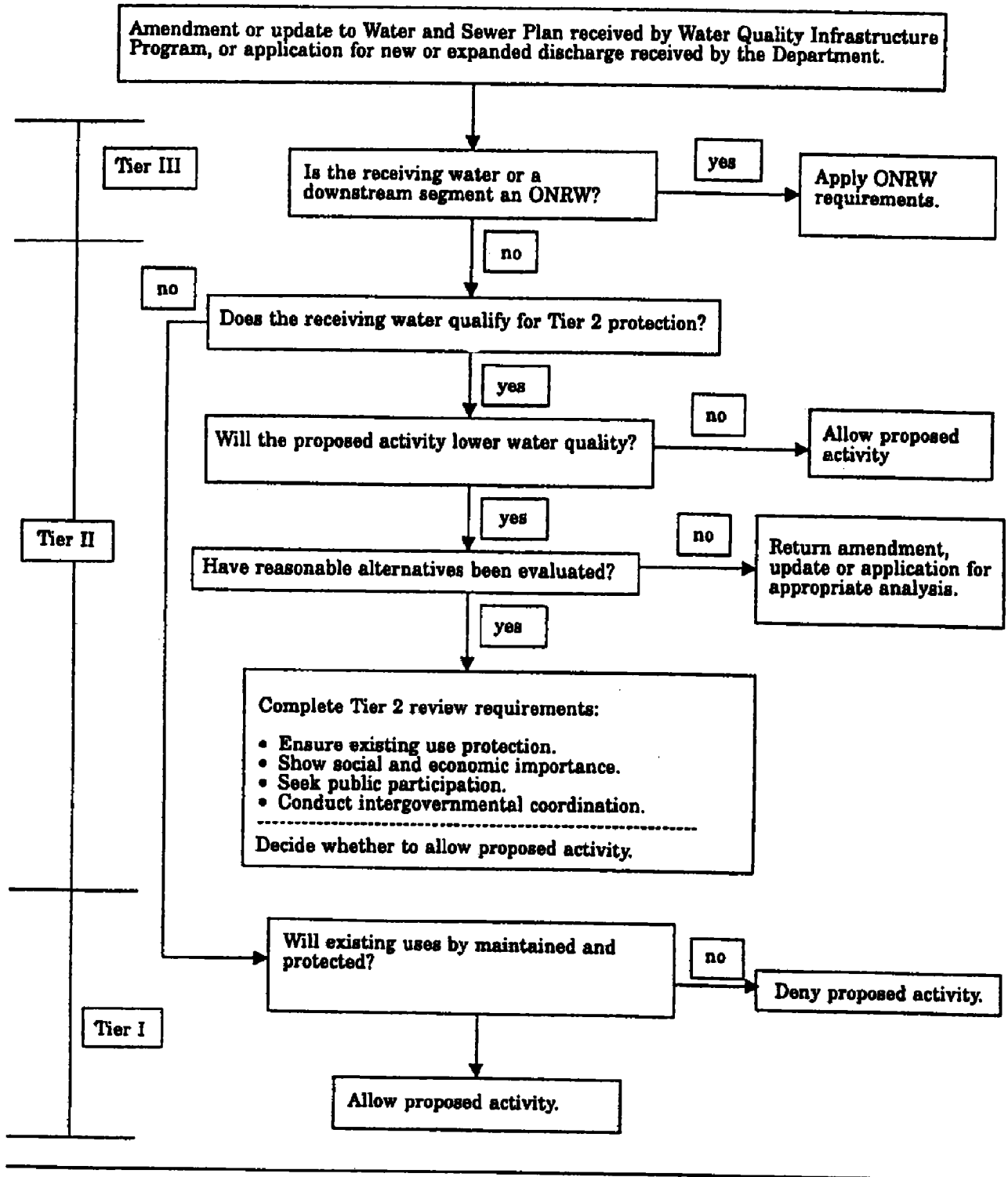
**County Saint Mary's**

| <b>Stream Name</b> | <b>12 Digit Code</b> | <b>From lat</b> | <b>From long</b> | <b>To lat</b> | <b>To long</b> |  |  | <b>Baseline:</b> |  |
|--------------------|----------------------|-----------------|------------------|---------------|----------------|--|--|------------------|--|
|--------------------|----------------------|-----------------|------------------|---------------|----------------|--|--|------------------|--|

|                              |                      |                 |                  |               |                |              |      |                  |      |
|------------------------------|----------------------|-----------------|------------------|---------------|----------------|--------------|------|------------------|------|
| WAREHOUSE RUN                | 021401030714         | 38.2215407      | 76.4864823       | 38.204523     | 76.497649      | Fish<br>IBI: | 4.75 | Benthic<br>IBI:  | 4.43 |
| <i>County     Washington</i> |                      |                 |                  |               |                |              |      |                  |      |
| <i>Stream Name</i>           | <i>12 Digit Code</i> | <i>From lat</i> | <i>From long</i> | <i>To lat</i> | <i>To long</i> |              |      | <i>Baseline:</i> |      |
| SHARMANS BR                  | 021405020187         | 39.4294219      | 77.7340864       | 39.429843     | 77.721405      | Fish<br>IBI: | 4.14 | Benthic<br>IBI:  | 4.11 |
| UT LITTLE ANTIETAM CREEK     | 021405020189         | 39.4394164      | 77.6705290       | 39.415785     | 77.672001      | Fish<br>IBI: | 4.14 | Benthic<br>IBI:  | 4.33 |
| UT LITTLE BEAVER CREEK       | 021405020192         | 39.5600917      | 77.6356179       | 39.547994     | 77.626639      | Fish<br>IBI: | 4.14 | Benthic<br>IBI:  | 4.33 |
| <i>County     Wicomico</i>   |                      |                 |                  |               |                |              |      |                  |      |
| <i>Stream Name</i>           | <i>12 Digit Code</i> | <i>From lat</i> | <i>From long</i> | <i>To lat</i> | <i>To long</i> |              |      | <i>Baseline:</i> |      |
| ADKINS RACE                  | 021302030648         | 38.3184222      | 75.3553709       | 38.330747     | 75.373247      | Fish<br>IBI: | 4.5  | Benthic<br>IBI:  | 4.14 |

P. Flow Chart.

**Maryland's Antidegradation Procedure**



## **26.08.02.04-2 Outstanding National Resource Water.**

A. Scope. There are many tools available to protect special resources including the Smart Growth Initiative, Rural Legacy Program, local comprehensive plans, Program Open Space, and others that work through the private sector and nongovernment organizations. This regulation applies the Tier III ONRW designation only where the most stringent protection is necessary and appropriate to protect and maintain existing exceptional resources. Where high quality waters constitute an outstanding national resource, such as waters of national and State parks and wildlife refuges, and waters of exceptional recreational or ecological significance, that water quality shall be maintained and protected.

### **B. Exceptional Biological Resources.**

#### **(1) Exceptional Biological Resources.**

(a) "Exceptional biological resources" means ecologically significant aquatic or wetland habitat that is:

(i) Distinctive because of its unique or very rare combination of natural species and communities; and

(ii) Dependent on maintaining high or pristine water quality or special conditions of existing water quality, such as a bog, which can best be assured protection by no new or increased discharge.

(b) "Exceptional biological resources" includes, if appropriate:

(i) Wholly aquatic threatened or endangered species as defined in Natural Resources Article, §10-2A-01, Annotated Code of Maryland;

(ii) Wholly aquatic species in need of conservation identified in COMAR 08.03.08.09; or

(iii) Wetlands of special concern as defined in COMAR 26.23.06.

(2) "Protected Area" means a permanently protected area such as:

(a) Wildlife refuges or similar habitat protection areas which include but are not limited to wildlife management areas, national parks, State parks, and management areas;

(b) Areas under permanent conservation easement or rural legacy status as determined in consultation with the Rural Legacy Board, Natural Resources Article, Subtitle 9A, §5-9A-03, Annotated Code of Maryland, or easement holder to assure that the location meets the intent and needs of the ONRW designation as determined by the Department of the Environment; or

(c) Areas under some other demonstrated protection, by which the Department may be assured that there will be no changes in land use which could result in nonpoint source runoff posing a direct or indirect threat to the biological values proposed in the nomination.

### **C. Eligible Nominations.**

(1) Required Components. The nominating group or individual shall provide:

(a) Evidence of the presence of exceptional biological resources or exceptional recreational resources dependent on such biological resources;

(b) Scientific information and analysis concerning existing water quality in the body of water including a demonstration that the water quality is typical of the nominated body of water;

(c) Specific boundaries of the nominated waters and upstream watershed, and a statement whether the nominated body of water and upstream watershed are fully within a protected area except as provided in §F of this regulation; and

(d) Demonstration that an attempt has been made to notify all impacted riparian landowners of the nomination by delivering or mailing notice of proposed nomination to the riparian landowner.

(2) A mailed notice shall request "Restricted Delivery" and show to whom it was delivered and the date and address of delivery.

(3) Additional Information That May Be Required. The Department may require the nominee to submit an economic analysis to address community economic and social concerns.

(4) Assessment. Before proposing the ONRW designation for a body of water, the Department will analyze the information in the nomination package for completeness and confirmation that the body of water achieves and meets the conditions of the ONRW designation.

#### D. Requirements for an ONRW.

(1) The area nominated for ONRW designation shall be an exceptional biological resource or exceptional recreational resource dependent on exceptional biological resources.

(2) The exceptional biological resource shall be dependent on maintaining high or pristine water quality or special conditions of existing water quality, such as a bog, which can best be assured protection by no new or increased discharge.

(3) To be designated an Outstanding National Resource Water, the area shall be wholly within a permanently protected area.

(4) If the area nominated for ONRW designation has high water quality but does not have exceptional biological resources, it will be protected against degradation under Regulation .04 of this chapter.

E. Protection for Upstream Areas that Feed the ONRW Water Body. In determining whether to designate a body of water as ONRW, the Department may consider whether the watershed upstream of the proposed ONRW area has protections in place that are consistent with the maintenance and protection of biological resources in the ONRW segment. These protections can include, but are not limited to:

(1) A county comprehensive plan or other plan that designates the upstream watershed as a "no growth area"; or

(2) An easement or other legal instrument that protects and maintains the existing land use.

F. Endangered Species. If a nomination is based on a federally threatened or endangered wholly aquatic species, the Department may, but is not required to, designate a water body as an ONRW without requiring protected status. Although the presence of an endangered species may be an indication of a special biological resource, the primary protection for endangered species is provided by the Maryland Nongame and Endangered Species Conservation Act, Natural Resources Article, Subtitle 2A, Annotated Code of Maryland, and the Federal Endangered Species Act. If an ONRW is approved for a body of water that is not in a protected status, any regulated activities in the watershed which would adversely impact the aquatic threatened or endangered species population, or impair the habitat required by the species, will require the maximum practical application of best management practices and implementation of antidegradation policies by the Department. The implementation requirements set forth in §I of this regulation also apply.

#### G. Designation of an Area as an ONRW.

(1) The Department may designate an area as an ONRW if:

(a) All provisions of the Administrative Procedure Act, Title 10, Subtitle 1, Annotated Code of Maryland, have been met;

(b) The application is complete and all requirements have been met; and

(c) Written permission for the designation has been received from the landowner or landowners within the proposed area for ONRW.

(2) Notice to property owners shall be based on property and tax records in the affected jurisdictions.

H. Public Involvement. The Department shall provide public notice and opportunity for a public informational hearing on the proposed designation of an ONRW before that designation is made. Local jurisdictions shall have 60 days after notification of the nomination to comment on the consistency of the nomination with the locality's comprehensive plan.

#### I. Implementation.

- (1) A wastewater or industrial discharge NPDES permit that would allow a new discharge or an increase in an individual discharge may be issued within an ONRW only if there is mitigation or offsets elsewhere in the ONRW segment that result in no net increase in any substance which might impact or impair the ONRW values for which the body of water was nominated.
- (2) A water quality certification may permit an impact only if:
  - (a) The water quality necessary to maintain and protect the exceptional biological resource is maintained; and
  - (b) There is mitigation or restoration elsewhere in the ONRW water segment.
- (3) Sources of pollution may be allowed by the Department for temporary degradation, if, after a minimal period of time (weeks to months), the waters are returned or restored to conditions equal to or better than those existing just before the temporary source of pollution.
- (4) After a public informational hearing, the Secretary may make exceptions to §I(1), (2), and (3) of this regulation to protect critical public health and safety concerns.

## **26.08.02.05 Surface Water Mixing Zones.**

### **A. General.**

- (1) Effluents may be mixed with surface waters in the mixing zone.
- (2) Effluents may not be treated in the mixing zone.
- (3) Lethality to passing organisms may not occur in any mixing zone.
- (4) Surface waters outside the mixing zones shall meet the water quality criteria for that particular body of water.
- (5) Mixing zones may be designated by the Department provided that the following requirements are met outside the mixing zones:
  - (a) There shall be no interference with biological communities or populations of indigenous species to a degree which is damaging to the aquatic life or ecosystem;
  - (b) There shall be no diminishing of other legitimate beneficial uses;
  - (c) Mixing zones may not form barriers to the migratory routes of aquatic life;
  - (d) Mixing zones shall be designated and located to protect surface waters and shallow water shoreline areas;
  - (e) The general water quality criteria set out in Regulation .03B(1)—(3) of this chapter apply within the mixing zones.
- (6) Complete mixing within the mixing zone shall be assumed for toxic substance discharges to streams, rivers, and estuaries unless site-specific information indicates that another mixing pattern is more appropriate.
- (7) Stream flows other than the design flow values set forth in §§B—E of this regulation may be used, at the Department's discretion, on a case-by-case basis for mixing zones associated with noncontinuous discharges.
- (8) Toxic pollutants shall be treated as conservative substances when calculating instream waste concentrations. The assumption of conservatism may be waived based on pollutant-specific and site-specific information.
- (9) Unless a later time is stipulated by the Department, the discharger shall submit to the Department, at the time of permit application, the mixing zone technique preferred for each of its discharges, and actual mixing zone calculations together with supporting documentation.

(10) A mixing zone may not cause a significant human health risk, considering likely pathways of human exposure.

(11) Except when the applicant can demonstrate to the satisfaction of the Department that adverse aquatic life or human health effect does not occur, overlapping mixing zones are not permitted. Demonstration may include chemical monitoring, ambient toxicity testing, or examination of benthic communities or fish tissue.

(12) A mixing zone may not be granted in water body segments with documented occurrences of any endangered or threatened species listed under §4 of the federal Endangered Species Act, if that discharge would likely have an adverse effect on those species.

B. Mixing Zones for Conventional Pollutants. The following requirements apply to the calculation of the regulatory mixing zones for conventional pollutants as identified in the Federal Act:

(1) Except for thermal mixing zones established in accordance with COMAR 26.08.03.03—.05 and toxic substance mixing zones established in accordance with §§C—E of this regulation, any mixing zone may not exceed the following maximum limits:

(a) In freshwater streams and rivers, a mixing zone width may not exceed 1/3 of the width of the surface water body;

(b) In lakes, the combined area of all mixing zones may not exceed 10 percent of the lake surface area; and

(c) In estuarine areas, the maximum cross-sectional area of the mixing zone may not exceed 10 percent of the cross-sectional area of the receiving water body; and

(2) The flows used shall be:

(a) For freshwater streams and rivers, the design stream flow; and

(b) For estuaries and the open ocean, determined from:

(i) Specific data, when available, for the mean water level and average tidal velocity and, where appropriate, the design stream flow,

(ii) Specific data on waste dispersion or dilution, when available for a specific discharge, or

(iii) Dispersion or dilution studies required at the Department's discretion.

C. Application of Toxic Substance Acute Criteria for the Protection of Aquatic Life.

(1) In intermittent streams, the acute criterion shall be applied at the end of the discharge pipe.

(2) In other water bodies, achievement of the acute criterion to protect aquatic life shall be provided:

(a) Within a very short distance from the outfall using:

(i) A high velocity discharge with an initial velocity of 3 meters per second or more, and

(ii) A mixing zone limited to 50 times the discharge length scale in any direction, where the discharge length scale is defined as the square root of the cross-sectional area of any discharge outlet;

(b) Without a high velocity discharge, within a short distance from the outfall using the most restrictive of the following conditions:

(i) Meeting the acute toxicity criterion within 10 percent of the distance from the edge of the outfall structure in any direction to the edge of the mixing zone used for application of toxic substance chronic criteria,

(ii) Meeting the acute toxicity criterion within a distance of 50 times the discharge length scale in any direction, when the discharge length is defined as the square root of the cross-sectional area of any discharge outlet, or

(iii) Meeting the acute toxicity criterion within a distance of five times the local water depth in any horizontal direction from the discharge outlet, where appropriate; or

(c) By demonstration or calculation that a drifting organism may not be exposed to a 1-hour average concentration exceeding the acute aquatic life criterion.

(3) For the application of the acute criteria, any mixing zone may not exceed the following maximum limits:

(a) In freshwater streams and rivers, a width equal to 1/3 the width of the surface water body;

(b) In lakes, for all discharges combined, 5 percent of the lake surface area; and

(c) In estuarine areas, a cross-sectional area equal to 5 percent of the cross-sectional area of the receiving water body.

(4) The flows used shall be:

(a) For freshwater streams and rivers, the design stream flow; and

(b) For estuaries and the open ocean, determined from:

(i) Specific data, when available, for the mean low water and minimum daily average 1-hour tidal velocity and, when appropriate, the design stream flow,

(ii) Specific data on waste dispersion or dilution, when available for a specific discharge, or

(iii) Dispersion or dilution studies required at the Department's discretion.

#### D. Application of Toxic Substance Chronic Criteria for the Protection of Aquatic Life.

(1) Any mixing zone may not exceed the following:

(a) In freshwater streams and rivers, a mixing zone width may not exceed 1/3 of the width of the surface water body;

(b) In lakes, the combined area of all mixing zones may not exceed 10 percent of the lake surface area; and

(c) In estuarine areas, the maximum cross-sectional area of the mixing zone may not exceed 10 percent of the cross-sectional area of the receiving water body.

(2) The flows used shall be:

(a) For freshwater streams and rivers, the 30Q5 value; and

(b) For estuaries and the open ocean, determined from:

(i) Specific data, when available, for the mean water level and average tidal velocity and, when appropriate, the 30Q5 stream flow,

(ii) Specific data on waste dispersion or dilution, when available for a specific discharge, or

(iii) Dispersion or dilution studies required at the Department's discretion.

E. Application of Toxic Substance Criteria for the Protection of Human Health. The flow used to determine impacts to human health shall be the mean annual flow value.

## 26.08.02.05-1 Intermittent Streams.

A. Discharges to intermittent streams are not permitted when feasible alternatives are available.

B. Effluent limitations for discharges to specific intermittent streams may be determined by the Department on a case-by-case basis.

C. Effluent limitations may not be less stringent than:

- (1) The minimum national effluent guidelines established under the Federal Act;
- (2) Those levels necessary to maintain the water quality standards of downstream segments;
- (3) Those levels necessary to protect the biological community of the intermittent stream; or
- (4) Those levels necessary to protect public health.

#### **26.08.02.06 Review and Revision.**

A. Procedure. Under State law and § 303(c) of the Federal Act, the Department shall review and revise its water quality standards as appropriate. Changes shall be transmitted to the EPA.

B. Hearing Transcripts. Transcripts of public hearings on proposed standards revisions shall be available for public inspection in the main office of the Department. Transcripts shall be furnished to the EPA upon request.

#### **26.08.02.07 Surface Water Use Designation.**

A. All surface waters of this State shall be protected for water contact recreation, fishing, and protection of aquatic life and wildlife.

B. For interstate waters, these classifications apply only to those waters within this State.

C. A stream segment is a distinct portion of a sub-basin.

D. If the stream segment limits are specified as beginning at a specific point, streams terminating downstream of this point are not included in the same segment. For example, "Deer Creek and all tributaries above Eden Mill Dam" does not include Little Deer Creek.

E. Stream segments, listed below in tabular form, shall be given the additional protection required for:

- (1) Shellfish harvesting waters (Use II waters);
- (2) Shallow water submerged aquatic vegetation (Use II waters);
- (3) Migratory fish spawning and nursery (Use II waters);
- (4) Natural trout waters (Use III and Use III-P waters);
- (5) Recreational trout waters (Use IV and Use IV-P waters);
- (6) Public water supply (Use I-P, II-P, III-P, and IV-P waters).

F. For each sub-basin in Regulation .08, information is arranged under the following headings:

- (1) Use—Refers to water classification;
- (2) Waters—Exact name of stream segment or segments;

(3) For geographic reference:

(a) MCGS—Most downstream point or line for each stream segment using the Maryland Coordinate Grid System (East/North);

(b) Latitude/Longitude—Point may reference a limit (NAD 27 or NAD 83) as a point identifier for a tidal (Use II) segment; or may indicate most downstream point or line for a stream segment as in §F(3)(a) of this regulation;

(4) Limits—Written description of boundary of stream segment or tidal segment established by MCGS or MDE;

(5) Any stream segment not listed in Regulation .08 is Use I water.

G. Stream segment classifications for each sub-basin are in Regulation .08.

## 26.08.02.08 Stream Segment Designations.

### A. General.

(1) If using the Maryland Coordinate Grid System (MCGS) (Easting/Northing), the limits indicate the most downstream point or line for the segment. The North American Datum (NAD) for the MCGS is NAD27.

(2) Tidal Segmentation Rationale. Water quality standards for the Chesapeake Bay and its tidal tributaries will be assessed on a "Bay Segment" scale. The segmentation is based on decisions made by the Chesapeake Bay Program in 1998 and 2003, and documented in Chesapeake Bay Program Analytical Segmentation Scheme Revisions, Decisions, and Rationales: 1983-2003 (EPA 903-R-04-008) as adjusted by the Chesapeake Bay Program after discussions with the affected State jurisdictions.

(3) Tidal Segment Boundaries. When using latitude and longitude to delineate Chesapeake Bay tidal segments, the limits are narrative descriptions that delineate the base points of reference. Chesapeake Bay tidal segments generally follow the shoreline contour at mean low water, and include all major bays, creeks, and branches present within the narrative limits of a given segment. The origin of latitudes and longitudes used for the Chesapeake Bay and its tidal tributaries is NAD83.

(4) Application of Chesapeake Bay Segmentation Scheme. The tidal boundaries set forth in this regulation are defined for water quality standards purposes within the Department only, and are not applicable to other agency regulations identified for other purposes.

(5) No Grow Zones. Submerged Aquatic Vegetation (SAV) "No-Grow" Zones (NGZ) are present in some shallow water designated use segments. The SAV "No Grow Zones" are identified in Technical Support Document for Identification of Chesapeake Bay Designated Uses and Attainability-2004 Addendum (EPA 903-R-04-006), Figures V-1 to V-12, which is incorporated by reference. The no grow zones shall be excluded from the assessment of the shallow water designated use.

### B. Sub-Basin 02-12-02: Lower Susquehanna River Area.

| Use Waters  | MCGS or<br>Latitude/<br>Longitude  | Limits   |
|---|------------------------------------|--|
| (1) Use I-P: Susquehanna River and all tributaries except those designated below as Use III-P or Use IV-P | 1068.8/625.5<br>to<br>1056.8/621.3 | From Mainstem from north side of Conowingo Dam to MD/PA line |

(2) Use II:

(a) Northern Chesapeake Bay (CB1TF2-Use II-P):  
Susquehanna River mainstem from south side of  
Conowingo Dam on eastern and western shores to  
confluence with Chesapeake Bay.

| Designated Uses Present in Segment | Latitude | Longitude | Limits |
|------------------------------------|----------|-----------|--------|
|------------------------------------|----------|-----------|--------|

|   | (Decimal<br>Degrees) | (Decimal<br>Degrees) |  |
|---|----------------------|----------------------|--|
| Migratory Spawning and Nursery Use:<br>February 1 to May 31, inclusive    | 39.475132            | -76.097580           | (1) West side of Spesutie Narrows bridge     |
| Use: April 1 to October 30, inclusive                                     | 39.476006            | -76.094421           | (2) East side of Spesutie Narrows bridge     |
| Application Depth: 2.0 meters<br>NGZ present                              | 39.475323            | -76.072807           | (3) Locust Pt. on Spesutie Island            |
| Open Water Fish and Shellfish Use:<br>January 1 to December 31, inclusive | 39.449471            | -76.010475           | (4) Turkey Pt., 0.1 miles WSW of lighthouse  |
|   | 39.529629            | -75.979271           | (5) Red Pt.                                  |
|   | 39.540794            | -76.002899           | (6) East side of Carpenter Pt.               |
|   | 39.608994            | -76.121094           | (7) Port Deposit                             |
|   | 39.608959            | -76.132683           | (8) East side Spencer Island                 |
|   | 39.609001            | -76.135147           | (9) West side Spencer Island                 |
|   | 39.608971            | -76.143379           | (10) Just south of Rock Run on western shore |

(b) Northern Chesapeake Bay (CB1TF1): Upper Bay  
mainstem to confluence with CB1TF2 (Susquehanna  
River), Northeast River (NORTF), Elk River (ELKOH),  
and CB2OH.

|  |           |            |   |
|--|-----------|------------|---|
| Migratory Spawning and Nursery Use:<br>February 1 to May 31, inclusive                 | 39.420143 | -76.123344 | (1) 1,000 feet SW of Cherry Tree Pt., APG   |
| Shallow Water Submerged Aquatic<br>Vegetation Use: April 1 to October 30,<br>inclusive | 39.401688 | -76.035194 | (2) North of Chesapeake Haven, Grove Neck   |
| Application Depth: 1 meters NGZ<br>present   | 39.429420 | -75.997681 | (3) 1,300 feet SW of Wroth Pt.              |
| Open Water Fish and Shellfish Use:<br>January 1 to December 31, inclusive              | 39.449200 | -76.007698 | (4) Turkey Pt.                              |
|  | 39.449471 | -76.010475 | (5) Turkey Pt., 0.1 miles WSW of lighthouse |
|  | 39.475323 | -76.072807 | (6) Locust Pt. on Spesutie Island           |
|  | 39.476006 | -76.094421 | (7) East side of Spesutie Narrows bridge    |
|  | 39.475132 | -76.097580 | (8) West side of Spesutie Narrows bridge    |

| Use Waters                                 | MCGS or<br>Latitude/<br>Longitude | Limits              |
|--|-----------------------------------|---------------------|
| (3) Use III: None.                         |                                   |                     |
| (4) Use III-P:                             |                                   |                     |
| (a) Deer Creek and all tributaries         | 956/671                           | Above Eden Mill Dam |
| (b) Basin Run and all tributaries          | 1040/667                          |                     |
| (c) Kellogg Branch and all tributaries     | 966/655.5                         |                     |
| (d) North Stirrup Run and all tributaries  | 969/650.2                         |                     |
| (e) South Stirrup Run and all tributaries  | 968.3/649                         |                     |
| (f) Deep Run and all tributaries           | 1008.2/677.8                      |                     |
| (g) Gladden Branch and all tributaries     | 967/658                           |                     |
| (h) Rock Hollow Branch and all tributaries | 958/663                           |                     |
| (i) Love Run and all tributaries           | 1046/678                          |                     |
| (j) Stone Run and all tributaries          | 1050.5/682.5                      |                     |

(5) Use IV: None.

(6) Use IV-P:

(a) Deer Creek and all tributaries 1040/649.3 From mouth to Eden Mill Dam

(b) Octoraro Creek 1036.7/665 Mainstem only

C. Sub-Basin 02-13-01: Coastal Area.

(1) Use I-P: None.

(2) Use II (Shellfish Harvest Use). All portions of the territorial seas and estuarine portions of bays and tributaries except:

(a) Bishopville Prong and tributaries 1321.7/216.4 Above confluence with St. Martins River

(b) Shingle Landing Prong and its tributaries 1323/214 Above confluence with St. Martins River at Piney Island

(c) Herring Creek and its tributaries 1336.4/189.9 Above Rt. 50

(d) Ocean City Harbor 1345/185.5 Above entrance to West Ocean City Harbor

(3) Use III: None.

(4) Use III-P: None.

(5) Use IV: None.

(6) Use IV-P: None.

D. Sub-Basin 02-13-02: Pocomoke River Area.

(1) Use I-P: None.

(2) Use II:

(a) Upper Pocomoke River Tidal Fresh (POCTF):

| Designated Uses Present in Segment   | Latitude<br>(Decimal<br>Degrees) | Longitude<br>(Decimal<br>Degrees) | Limits  |
|--|----------------------------------|-----------------------------------|---|
| Migratory Spawning and Nursery Use:<br>February 1 to May 31, inclusive                 | 38.062958<br>38.062840           | -75.617470<br>-75.616302          | (1) West of Unionville, Somerset Co. side<br>(2) West of Unionville, Worcester Co. side |
| Shallow Water Submerged Aquatic<br>Vegetation Use: April 1 to October 30,<br>inclusive | 38.183201                        | -75.391991                        | (3) Snow Hill, 1,900 feet upstream of Rt. 12  |
| Application Depth: .05 meters  |                                  |                                   |   |
| NGZ Present  |                                  |                                   |   |
| Open Water Fish and Shellfish Use:<br>January 1 to December 31, inclusive              |                                  |                                   |   |

(b) Middle Pocomoke River Oligohaline (POCOH):

| Designated Uses Present in Segment                                     | Latitude<br>(Decimal<br>Degrees) | Longitude<br>(Decimal<br>Degrees) | Limits  |
|--|----------------------------------|-----------------------------------|---|
| Migratory Spawning and Nursery Use:<br>February 1 to May 31, inclusive | 37.966858<br>37.951850           | -75.674603<br>-75.676225          | (1) On mainland 4,000 feet NW of Fair Island<br>(2) MD/VA State Line-Pocomoke Sound |
| Shallow Water Submerged Aquatic<br>Vegetation                          | 37.949924<br>37.945125           | -75.667353<br>-75.656153          | (3) MD/VA State Line-Pocomoke Sound<br>(4) MD/VA State Line south of Williams Pt.   |
| Use: April 1 to October 30, inclusive                                  | 37.946728                        | -75.648248                        | (5) MD/VA State Line-Pocomoke Sound   |

|  |           |            |  |
|--|-----------|------------|--|
| Application Depth: 0.5 meters  | 37.966423 | -75.648553 | (6) MD/VA State Line-700' upstream of mouth                                  |
| NGZ Present  | 37.994347 | -75.624314 | (7) Intersection of Somerset Co. and Worcester Co., MD, and Accomack Co., VA |
| Open Water Fish and Shellfish Use: January 1 to December 31, inclusive | 37.994449 | -75.623122 | (8) Worcester Co., MD-Accomack Co., VA boundary                              |
|  | 38.062840 | -75.616302 | (9) West of Unionville, Worcester Co. side                                   |
|  | 38.062958 | -75.617470 | (10) West of Unionville, Somerset Co. side                                   |

(c) Lower Pocomoke River Mesohaline (POCMH):

| Designated Uses Present in Segment   | Latitude<br>(Decimal<br>Degrees) | Longitude<br>(Decimal<br>Degrees) | Limits   |
|--|----------------------------------|-----------------------------------|--|
| Migratory Spawning and Nursery Use:<br>February 1 to May 31, inclusive           | 37.924927<br>37.911789           | -75.848007<br>-75.837732          | (1) Eastward Pt., on eastern side of Broad Creek<br>(2) MD/VA State Line, 1.15 miles south of Cow Gap Island |
| Shallow Water Submerged Aquatic Vegetation Use: April 1 to October 30, inclusive | 37.912169<br>37.941226           | -75.801148<br>-75.761753          | (3) MD/VA State Line-Pocomoke Sound<br>(4) MD/VA State Line-Pocomoke Sound                                   |
| Application Depth: 1.0 meters  | 37.954523                        | -75.704753                        | (5) MD/VA State Line-Pocomoke Sound  |
| NGZ Present  | 37.955237                        | -75.691653                        | (6) MD/VA State Line-Pocomoke Sound  |
| Open Water Fish and Shellfish Use:<br>January 1 to December 31, inclusive        | 37.951850<br>37.966858           | -75.676225<br>-75.674603          | (7) MD/VA State Line-Pocomoke Sound<br>(8) On mainland 4,000 feet NW of Fair Island                          |
| Shellfish Harvest Use: See §D(2)(j) of this regulation                           |                                  |                                   |  |

(d) Manokin River Mesohaline (MANMH1):

| Designated Uses Present in Segment   | Latitude<br>(Decimal<br>Degrees)   | Longitude<br>(Decimal<br>Degrees)  | Limits  |
|--|--|--|---|
| Migratory Spawning and Nursery Use:<br>February 1 to May 31, inclusive           | 38.131565<br>38.125946   | -75.948860<br>-75.941216   | (1) Wenona on Deal Island, north of channel<br>(2) Eastern point on north side of Little Deal Island<br>(3) Eastern side of Little Deal Island  |
| Shallow Water Submerged Aquatic Vegetation Use: April 1 to October 30, inclusive | 38.122917<br>38.078552   | -75.937126<br>-75.877586   | (4) Hazard Island, 1,200 feet NE of tip of Hazard Pt.<br>(5) Gut between Hazard Cove and Mine Creek, N side   |
| Application Depth: 2.0 meters  |  |  |   |
| Open Water Fish and Shellfish Use:<br>January 1 to December 31, inclusive        | 38.075663<br>38.075314   | -75.871155<br>-75.870750   | (6) Gut between Hazard Cove and Mine Creek, S side<br>(7) West part Hazard Island at Shirtpond Cove<br>(8) East part Hazard Island at Shirtpond Cove  |
| Shellfish Harvest: See §D(2)(j) of this regulation                               | 38.069160<br>38.069599<br>38.073784<br>38.074146<br>38.133823<br>38.142979<br>38.160442<br><br>38.160080 | -75.855591<br>-75.853897<br>-75.848656<br>-75.848228<br>-75.827339<br>-75.821144<br>-75.929558<br><br>-75.932388 | (9) W side of gut heading N from Flatland Cove<br>(10) E side of gut heading N from Flatland Cove<br>(11) Cormal Pt.<br>(12) Champ Pt.<br>(13) Upper Thorofare at the mouth of Moores Gut<br>(14) Upper Thorofare, Deal Island side |

(e) Manokin River Mesohaline (MANMH2):

| Designated Uses Present in Segment  | Latitude<br>(Decimal<br>Degrees) | Longitude<br>(Decimal<br>Degrees) | Limits        |
|-------------------------------------|----------------------------------|-----------------------------------|---------------|
| Migratory Spawning and Nursery Use: | 38.142979                        | -75.821144                        | (1) Champ Pt. |

|  |           |            |   |
|--|-----------|------------|---|
| February 1 to May 31, inclusive                    | 38.133823 | -75.827339 | (2) Cormal Pt.                                |
| Shallow Water Submerged Aquatic                    | 38.172668 | -75.732979 | (3) Manokin River confluence with Hall Branch |
| Vegetation Use: April 1 to October 30, inclusive   |           |            |   |
| Application Depth: 0.5 meters                      |           |            |   |
| Open Water Fish and Shellfish Use:                 |           |            |   |
| January 1 to December 31, inclusive                |           |            |   |
| Shellfish Harvest: See §D(2)(j) of this regulation |           |            |   |

(f) Big Annemessex River Mesohaline (BIGMH1):

| Designated Uses Present in Segment                 | Latitude<br>(Decimal<br>Degrees) | Longitude<br>(Decimal<br>Degrees) | Limits  |
|--|----------------------------------|-----------------------------------|---|
| Migratory Spawning and Nursery Use:                | 38.058910                        | -75.868744                        | (1) South shore of Pat Island                     |
| February 1 to May 31, inclusive                    | 38.036049                        | -75.868935                        | (2) 700 feet East of Flatcap Pt., Janes Island    |
| Shallow Water Submerged Aquatic                    | 38.020973                        | -75.856819                        | (3) North side of gut SW of Acre Creek            |
| Vegetation Use: April 1 to October 30, inclusive   | 38.020733                        | -75.856712                        | (4) South side of gut SW of Acre Creek            |
| Application Depth: 2.0 meters                      | 38.016033                        | -75.846458                        | (5) West side of Daugherty Creek Canal            |
| Open Water Fish and Shellfish Use:                 | 38.015781                        | -75.845947                        | (6) East side of Daugherty Creek Canal            |
| January 1 to December 31, inclusive                | 38.078850                        | -75.782249                        | (7) Persimmon Pt.                                 |
| Shellfish Harvest: See §D(2)(j) of this regulation | 38.074585                        | -75.787170                        | (8) Charles Pt.                                   |
|  | 38.074146                        | -75.848228                        | (9) East side of gut heading N from Flatland Cove |
|  | 38.073784                        | -75.848656                        | (10) W side of gut heading N from Flatland Cove   |
|  | 38.069599                        | -75.853897                        | (11) East part Hazard Island at Shirtpond Cove    |
|  | 38.069160                        | -75.855591                        | (12) West part Hazard Island at Shirtpond Cove    |
|  | 38.065315                        | -75.866608                        | (13) Hazard Island, across gut from Pat Island    |
|  | 38.064907                        | -75.866974                        | (14) NE Pat Island, across gut from Hazard Island |

(g) Big Annemessex River Mesohaline (BIGMH2):

| Designated Uses Present in Segment                 | Latitude<br>(Decimal<br>Degrees) | Longitude<br>(Decimal<br>Degrees) | Limits  |
|--|----------------------------------|-----------------------------------|---|
| Migratory Spawning and Nursery Use:                | 38.074585                        | -75.787170                        | (1) Charles Pt.                                       |
| February 1 to May 31, inclusive                    | 38.078850                        | -75.782249                        | (2) Persimmon Pt.                                     |
| Shallow Water Submerged Aquatic                    | 38.087246                        | -75.733032                        | (3) 1,000 feet below confluence with Annemessex Creek |
| Vegetation Use: April 1 to October 30, inclusive   |                                  |                                   |   |
| Application Depth: 0.5 meters                      |                                  |                                   |   |
| Open Water Fish and Shellfish Use:                 |                                  |                                   |   |
| January 1 to December 31, inclusive                |                                  |                                   |   |
| Shellfish Harvest: See §D(2)(j) of this regulation |                                  |                                   |   |

(h) Tangier Sound Mesohaline (TANMH1):

| Designated Uses Present in Segment               | Latitude<br>(Decimal<br>Degrees) | Longitude<br>(Decimal<br>Degrees) | Limits   |
|--|----------------------------------|-----------------------------------|--|
| Shallow Water Submerged Aquatic                  | 37.941404                        | -76.083908                        |  |
| Vegetation Use: April 1 to October 30, inclusive | 37.953599                        | -76.052055                        | (1) MD/VA boundary, 2.25 miles west of Smith Gut Pt. |
| Application Depth: 2.0 meters                    | 37.953392                        | -75.993331                        | (2) MD/VA boundary, 1,450' west of Hog Neck          |
| NGZ Present                                      | 37.946050                        | -75.943628                        | (3) MD/VA boundary, 400' east of Horse Hammock       |
|  |                                  |                                   | (4) MD/VA boundary, between Smith and Cedar Is       |

|  |           |            |  |
|--|-----------|------------|--|
| Open Water Fish and Shellfish Use:<br>January 1 to December 31, inclusive<br>Shellfish Harvest: See §D(2)(j) of this<br>regulation | 37.906718 | -75.952630 | (5) MD/VA boundary, 2.75 miles west of Clump Island    |
|  | 37.911304 | -75.883558 | (6) MD/VA boundary, 300' north of Green Harbor I.      |
|  | 37.911789 | -75.837732 | (7) MD/VA boundary, 1.15miles south of Cow Gap Island  |
|  | 37.924927 | -75.848007 | (8) Eastward Pt., on eastern side of Broad Creek       |
|  | 38.015781 | -75.845947 | (9) East side of Daugherty Creek Canal                 |
|  | 38.016033 | -75.846458 | (10) West side of Daugherty Creek Canal                |
|  | 38.020733 | -75.856712 | (11) South side of gut SW of Acre Creek                |
|  | 38.020973 | -75.856819 | (12) North side of gut SW of Acre Creek                |
|  | 38.036049 | -75.868935 | (13) 700 feet east of Flatcap Pt., Janes Island        |
|  | 38.058910 | -75.868744 | (14) South shore of Pat Island                         |
|  | 38.064907 | -75.866974 | (15) NE Pat Island, across gut from Hazard Island      |
|  | 38.065315 | -75.866608 | (16) Hazard Island, across gut from Pat Island         |
|  | 38.075314 | -75.870750 | (17) Gut between Hazard Cove and Mine Cr., south side  |
|  | 38.075665 | -75.871155 | (18) Gut between Hazard Cove and Mine Cr., north side  |
|  | 38.078552 | -75.877586 | (19) Hazard Island, 1,200 feet NE of tip of Hazard Pt. |
|  | 38.122917 | -75.937126 | (20) Eastern side of Little Deal Island                |
|  | 38.125946 | -75.941216 | (21) Eastern point on north side of Little Deal Island |
|  | 38.131565 | -75.948860 | (22) Wenona on Deal Island, north of channel           |
|  | 38.136566 | -75.959633 | (23) Twiggs Pt.  |
|  | 38.232738 | -75.972618 | (24) Southern-most point of Clay Island                |
|  | 38.216042 | -76.032051 | (25) Bishops Head Pt.                                  |
|  | 38.215809 | -76.032349 | (26) Bishops Head Pt.                                  |
|  | 38.231964 | -76.134285 | (27) Lower Hooper I. between Nancys and Creek Pts.     |
|  | 38.231445 | -76.135773 | (28) Lower Hooper I. between Nancys and Creek Pts.     |

(i) Tangier Sound Mesohaline (TANMH2):

| Designated Uses Present in Segment  | Latitude<br>(Decimal<br>Degrees) | Longitude<br>(Decimal<br>Degrees) | Limits  |
|---|----------------------------------|-----------------------------------|---|
| Shallow Water Submerged Aquatic<br>Vegetation Use: April 1 to October 30,<br>inclusive Application Depth: 0.5 meters<br>NGZ Present | 38.232738                        | -75.972618                        | (1) Southern-most point of Clay Island                        |
|   | 38.136566                        | -75.959633                        | (2) Twiggs Pt.  |
|   | 38.160080                        | -75.932388                        | (3) Upper Thorofare, Deal Island side                         |
|   | 38.160442                        | -75.929558                        | (4) Upper Thorofare at the mouth of Moores Gut                |
| Open Water Fish and Shellfish Use:<br>January 1 to December 31, inclusive   | 38.202679                        | -75.890579                        | (5) 1,100 feet west of the tip of Long Pt.                    |
|   | 38.227970                        | -75.893486                        | (6) Nanticoke Pt. (Stump Point Marsh)                         |
| Shellfish Harvest: See §D(2)(j) of this<br>regulation   | 38.243217                        | -75.906105                        | (7) West of Waterview, north of Jones Creek                   |
|   | 38.244740                        | -75.941284                        | (8) Sandy Island, NE of Frog Pt.                              |
| Use Waters  |                                  | MCGS or<br>Latitude/<br>Longitude | Limits  |
| (j) Shellfish Harvest Subcategory. All estuarine portions<br>of tributaries except:   |                                  |                                   |   |
| (i) Manokin River and tributaries   |                                  | 1165/125.3                        | Above confluence of tributaries Manokin River and Kings Creek |
| (ii) Big Annemessex River and tributaries   |                                  | 1160.8/95.2                       | Above River Road  |
| (iii) Jenkins Creek From  |                                  | 1127/48 to                        | Above mouth   |

|                             |             |                  |
|-----------------------------|-------------|------------------|
|                             | 1127.3/45.7 |                  |
| (iv) Fair Island Canal From | 1177.6/51   |                  |
|                             | to          |                  |
|                             | 1187.7/50.1 |                  |
| (v) Pocomoke River          | 1196/62     | Above MD/VA line |

- (3) Use III: None.
- (4) Use III-P: None.
- (5) Use IV: None.
- (6) Use IV-P: None.

E. Sub-Basin 02-13-03: Nanticoke River Area.

- (1) Use I-P: None.
- (2) Use II:

(a) Upper Nanticoke River Tidal Fresh (NANTF): from Maryland-Delaware state line to confluence with Plum Creek:

| Designated Uses Present in Segment   | Latitude<br>(Decimal<br>Degrees) | Longitude<br>(Decimal<br>Degrees) | Limits                                     |
|--|----------------------------------|-----------------------------------|--|
| Migratory Spawning and Nursery Use:<br>February 1 to May 31, inclusive                 | 38.538052                        | -75.745972                        | (1) 600 feet upstream of Molly Horn Branch |
| Shallow Water Submerged Aquatic<br>Vegetation Use: April 1 to October 30,<br>inclusive | 38.536259                        | -75.744843                        | (2) 375 feet upstream of Plum Creek        |
| Application Depth: 0.5 meters  | 38.642723                        | -75.606522                        | (3) Seaford, DE just above Middleford Rd.  |
| NGZ Present  |                                  |                                   |  |
| Open Water Fish and Shellfish Use:<br>January 1 to December 31, inclusive              |                                  |                                   |  |
| Shellfish Harvest: See §E(2)(f) of this<br>regulation                                  |                                  |                                   |  |

(b) Middle Nanticoke River Oligohaline (NANO):

| Designated Uses Present in Segment   | Latitude<br>(Decimal<br>Degrees) | Longitude<br>(Decimal<br>Degrees) | Limits   |
|--|----------------------------------|-----------------------------------|--|
| Migratory Spawning and Nursery Use:<br>February 1 to May 31, inclusive                 | 38.387169                        | -75.859673                        | (1) 900 feet downstream of Wapremander Creek                 |
| Shallow Water Submerged Aquatic<br>Vegetation Use: April 1 to October 30,<br>inclusive | 38.381268                        | -75.839233                        | (2) 600 feet upstream of Quantico Creek                      |
| Application Depth: 0.5 meters  | 38.536259                        | -75.744843                        | (3) 375 feet upstream of Plum Creek                          |
| Open Water Fish and Shellfish Use:<br>January 1 to December 31, inclusive              | 38.538052                        | -75.745972                        | (4) 600 feet upstream of Molly Horn Branch                   |
| Shellfish Harvest: See §E(2)(f) of this<br>regulation                                  | 38.553452                        | -75.774071                        | (5) Marshyhope Cr., 500 feet downstream of Big<br>Indian Cr. |

(c) Lower Nanticoke River Mesohaline (NANMH):

| Designated Uses Present in Segment | Latitude<br>(Decimal | Longitude<br>(Decimal | Limits |
|------------------------------------|----------------------|-----------------------|--------|
|------------------------------------|----------------------|-----------------------|--------|

|  | Degrees)  | Degrees)   |   |
|--|-----------|------------|---|
| Migratory Spawning and Nursery Use:                | 38.24474  | -75.941284 | (1) Sandy Island, NE of Frog Pt.              |
| February 1 to May 31, inclusive                    | 38.243217 | -75.906105 | (2) West of Waterview, North of Jones Creek   |
| Shallow Water Submerged Aquatic                    | 38.381268 | -75.839233 | (3) 600 feet upstream of Quantico Creek       |
| Vegetation   | 38.387169 | -75.859673 | (4) 900 feet downstream of Wapreinander Creek |
| Use: April 1 to October 30, inclusive              |           |            |   |
| Application Depth: 0.5 meters                      |           |            |   |
| Open Water Fish and Shellfish Use:                 |           |            |   |
| January 1 to December 31, inclusive                |           |            |   |
| Shellfish Harvest: See §E(2)(f) of this regulation |           |            |   |

(d) Wicomico River Mesohaline (WICMH):

| Designated Uses Present in Segment                 | Latitude<br>(Decimal<br>Degrees) | Longitude<br>(Decimal<br>Degrees) | Limits   |
|--|----------------------------------|-----------------------------------|--|
| Migratory Spawning and Nursery Use:                | 38.227970                        | -75.893486                        | (1) Nanticoke Pt. (Stump Point Marsh)            |
| February 1 to May 31, inclusive                    | 38.202679                        | -75.890579                        | (2) 1,100 feet West of the tip of Long Pt.       |
| Shallow Water Submerged Aquatic                    | 38.361588                        | -75.583061                        | (3) Beaverdam Cr., 3,000 feet upstream of Rt. 12 |
| Vegetation   |                                  |                                   |  |
| Use: April 1 to October 30, inclusive              |                                  |                                   |  |
| Application Depth: 0.5 meters                      |                                  |                                   |  |
| NGZ present  |                                  |                                   |  |
| Open Water Fish and Shellfish Use:                 |                                  |                                   |  |
| January 1 to December 31, inclusive                |                                  |                                   |  |
| Shellfish Harvest: See §E(2)(f) of this regulation |                                  |                                   |  |

(e) Fishing Bay Mesohaline (FSBMH):

| Designated Uses Present in Segment                 | Latitude<br>(Decimal<br>Degrees) | Longitude<br>(Decimal<br>Degrees) | Limits   |
|--|----------------------------------|-----------------------------------|--|
| Migratory Spawning and Nursery Use:                | 38.216042                        | -76.032051                        | (1) Bishops Head Pt.                           |
| February 1 to May 31, inclusive                    | 38.232738                        | -75.972618                        | (2) Southern-most point of Clay Island         |
| Shallow Water Submerged Aquatic                    | 38.404148                        | -76.002716                        | (3) Transquaking River west of Thorofare Marsh |
| Vegetation   | 38.404133                        | -76.029968                        | (4) Backgarden Pond, SE shore                  |
| Use: April 1 to October 30, inclusive              |                                  |                                   |  |
| Application Depth: 0.5 meters                      |                                  |                                   |  |
| Open Water Fish and Shellfish Use:                 |                                  |                                   |  |
| January 1 to December 31, inclusive                |                                  |                                   |  |
| Shellfish Harvest: See §E(2)(f) of this regulation |                                  |                                   |  |

| Use Waters   | MCGS or<br>Latitude/<br>Longitude        | Limits      |
|--|--|-------------|
| (f) Shellfish Harvest Subcategory. All estuarine portions of tributaries except: |  |             |
| (i) Blackwater River and tributaries   | From<br>1083.1/192<br>to<br>1084.2/191.6 | Above mouth |
| (ii) Transquaking River and tributaries  | From                                     | Above mouth |

1085.2/196.3  
to 1088/197

(iii) Nanticoke River and tributaries      From      Above line from Runaway Pt. to Long Pt.  
1126/194 to  
1128.2/191.2

(iv) Wicomico River and tributaries      1147.9/160.5      Above ferry crossing at White Haven

(v) Monie Creek      1138.7/146.7      Above mouth

(3) Use III: None.

(4) Use III-P: None.

(5) Use IV: None.

(6) Use IV-P: None.

F. Sub-Basin 02-13-04: Choptank River Area.

(1) Use I-P: None.

(2) Use II:

(a) Upper Choptank River Tidal Fresh (CHOTF):

| Designated Uses Present in Segment   | Latitude<br>(Decimal<br>Degrees) | Longitude<br>(Decimal<br>Degrees) | Limits  |
|--|----------------------------------|-----------------------------------|---|
| Migratory Spawning and Nursery Use:<br>February 1 to May 31, inclusive                 | 38.810635<br>38.808270           | -75.902985<br>-75.900391          | (1) 1,850 feet downstream from mouth of Tuckahoe Cr.<br>(2) 1,000 feet downstream of Gilpin Pt. |
| Shallow Water Submerged Aquatic<br>Vegetation Use: April 1 to October 30,<br>inclusive | 38.980827                        | -75.792931                        | (3) 3,500 feet upstream of Rt. 313 bridge   |
| Application Depth: 0.5 meters meters<br>NGZ present                                    |                                  |                                   |   |
| Open Water Fish and Shellfish Use:<br>January 1 to December 31, inclusive              |                                  |                                   |   |
| Shellfish Harvest: See §F(2)(g) of this<br>regulation                                  |                                  |                                   |   |

(b) Middle Choptank River Oligohaline (CHOOH):

| Designated Uses Present in Segment  | Latitude<br>(Decimal<br>Degrees) | Longitude<br>(Decimal<br>Degrees) | Limits   |
|---|----------------------------------|-----------------------------------|--|
| Migratory Spawning and Nursery Use:<br>February 1 to May 31, inclusive    | 38.653545<br>38.647415           | -75.959129<br>-75.952339          | (1) 1.5 miles downstream of Bow Knee Pt.<br>(2) 1.05 miles upstream of Cabin Creek             |
| Shallow Water Submerged Aquatic<br>Vegetation                             | 38.808270<br>38.810635           | -75.900391<br>-75.902985          | (3) 1,000 feet downstream of Gilpin Pt.<br>(4) 1850 feet downstream from mouth of Tuckahoe Cr. |
| Use: April 1 to October 30, inclusive                                     |                                  |                                   |  |
| Application Depth: 0.5 meters   |                                  |                                   |  |
| NGZ present   |                                  |                                   |  |
| Open Water Fish and Shellfish Use:<br>January 1 to December 31, inclusive |                                  |                                   |  |
| Shellfish Harvest: See §F(2)(g) of this<br>regulation                     |                                  |                                   |  |

(c) Lower Choptank River Mesohaline (CHOMH2):

| Designated Uses Present in Segment                 | Latitude<br>(Decimal<br>Degrees) | Longitude<br>(Decimal<br>Degrees) | Limits                                   |
|--|----------------------------------|-----------------------------------|--|
| Migratory Spawning and Nursery Use:                | 38.649193                        | -76.153114                        | (1) 0.9 miles N. of Chlora Pt.           |
| February 1 to May 31, inclusive                    | 38.628571                        | -76.171051                        | (2) 400 feet west of Castle Haven Pt.    |
| Shallow Water Submerged Aquatic                    | 38.647415                        | -75.952339                        | (3) 1.05 miles upstream of Cabin Creek   |
| Vegetation   | 38.653545                        | -75.959129                        | (4) 1.5 miles downstream of Bow Knee Pt. |
| Use: April 1 to October 30, inclusive              |                                  |                                   |  |
| Application Depth: 1.0 meters                      |                                  |                                   |  |
| Open Water Fish and Shellfish Use:                 |                                  |                                   |  |
| January 1 to December 31, inclusive                |                                  |                                   |  |
| Shellfish Harvest: See §F(2)(g) of this regulation |                                  |                                   |  |

(d) Mouth of the Choptank River Mesohaline (CHOMH1):

| Designated Uses Present in Segment                 | Latitude<br>(Decimal<br>Degrees) | Longitude<br>(Decimal<br>Degrees) | Limits   |
|--|----------------------------------|-----------------------------------|--|
| Migratory Spawning and Nursery Use:                | 38.672421                        | -76.340698                        | (1) 720 feet along shore NNW of Blackwalnut Pt.        |
| February 1 to May 31, inclusive                    | 38.571705                        | -76.336029                        | (2) Hills Pt.  |
| Shallow Water Submerged Aquatic                    | 38.573353                        | -76.306503                        | (3) 1.6 miles almost due west of Hills Pt.             |
| Vegetation   | 38.628571                        | -76.171051                        | (4) 400 feet west of Castle Haven Pt.                  |
| Use: April 1 to October 30, inclusive              | 38.649193                        | -76.153114                        | (5) 0.9 miles N. of Chlora Pt.                         |
| Application Depth: 2.0 meters                      | 38.719967                        | -76.333054                        | (6) North side Knapps Narrows, 150 feet west of Rt. 33 |
| NGZ present  | 38.719185                        | -76.334084                        | (7) South side Knapps Narrows, 275 feet west of Rt. 33 |
| Open Water Fish and Shellfish Use:                 |                                  |                                   |  |
| January 1 to December 31, inclusive                |                                  |                                   |  |
| Shellfish Harvest: See §F(2)(g) of this regulation |                                  |                                   |  |

(e) Little Choptank River Mesohaline (LCHMH):

| Designated Uses Present in Segment                 | Latitude<br>(Decimal<br>Degrees) | Longitude<br>(Decimal<br>Degrees) | Limits   |
|--|----------------------------------|-----------------------------------|--|
| Shallow Water Submerged Aquatic                    | 38.231964                        | -76.306503                        | (1) 1.6 miles almost due west of Hills Pt.             |
| Vegetation Use: April 1 to October 30, inclusive   | 38.571705                        | -76.336029                        | (2) Hills Pt.  |
|  | 38.527523                        | -76.333801                        | (3) East edge of tidal flat N of existing James Island |
| Application Depth: 2.0 meters                      | 38.526997                        | -76.333771                        | (4) 190 feet South of LCHMH Point #3                   |
| Open Water Fish and Shellfish Use:                 | 38.487057                        | -76.331779                        | (5) West side of Oyster Cove, Taylors Island           |
| January 1 to December 31, inclusive                | 38.421944                        | -76.288742                        | (6) Southern tip of Taylors Island                     |
| Shellfish Harvest: See §F(2)(g) of this regulation | 38.421051                        | -76.288589                        | (7) Meekins Neck, across channel from Point #6         |
|  | 38.398201                        | -76.237053                        | (8) W shore Great Marsh Cr. 1,800 feet above Rt. 335   |
|  | 38.398605                        | -76.237030                        | (9) E shore Great Marsh Cr. 1,800 feet above Rt. 335   |

(f) Honga River Mesohaline (HNGMH):

| Designated Uses Present in Segment               | Latitude<br>(Decimal<br>Degrees) | Longitude<br>(Decimal<br>Degrees) | Limits  |
|--|----------------------------------|-----------------------------------|---|
| Shallow Water Submerged Aquatic                  | 38.231964                        | -76.134285                        | (1) Lower Hooper I. between Nancys and Creek Pts.       |
| Vegetation Use: April 1 to October 30, inclusive | 38.215809                        | -76.032349                        | (2) Bishops Head Pt.                                    |
|  | 38.398605                        | -76.237030                        | (3) Great Marsh Creek, north side, 1,900 feet above 335 |
| Application Depth: 2.0 meters                    | 38.398201                        | -76.237053                        | (4) Great Marsh Creek, south side, 1,900 feet above 335 |
| Open Water Fish and Shellfish Use:               | 38.349953                        | -76.227982                        | (5) Drawbridge, southern Meekins Neck                   |

|  |           |            |  |
|--|-----------|------------|--|
| January 1 to December 31, inclusive                | 38.348228 | -76.227264 | (6) Drawbridge, northern Upper Hooper Island         |
| Shellfish Harvest: See §F(2)(g) of this regulation | 38.298965 | -76.206718 | (7) Ferry Pt.  |
|  | 38.295982 | -76.204597 | (8) NW tip of Middle Hooper I. across from Ferry Pt. |
|  | 38.248642 | -76.154419 | (9) Middle Hooper Island, NW end of The Thorofare    |
|  | 38.248581 | -76.153191 | (10) Lower Hooper Island, NE end of The Thorofare    |

|            |                                   |        |
|------------|-----------------------------------|--------|
| Use Waters | MCGS or<br>Latitude/<br>Longitude | Limits |
|------------|-----------------------------------|--------|

(g) Shellfish Harvest Subcategory. All estuarine portions of tributaries except:

|                                    |                                     |  |
|------------------------------------|-------------------------------------|--|
| (i) Choptank River and tributaries | From<br>1099.3/308 to<br>1101/306.5 | Above line from Bow Knee Pt. to Wright Wharf |
|------------------------------------|-------------------------------------|--|

|                                      |              |                  |
|--------------------------------------|--------------|------------------|
| (ii) Tred Avon River and tributaries | 1057.6/341.6 | Above Easton Pt. |
|--------------------------------------|--------------|------------------|

(3) Use III: None.

(4) Use III-P: None.

(5) Use IV: None.

(6) Use IV-P: None.

G. Sub-Basin 02-13-05: Chester River Area.

(1) Use I-P: None.

(2) Use II:

(a) Upper Chester River Tidal Fresh (CHSTF):

| Designated Uses Present in Segment   | Latitude<br>(Decimal<br>Degrees) | Longitude<br>(Decimal<br>Degrees) | Limits                                      |
|--|----------------------------------|-----------------------------------|---|
| Migratory Spawning and Nursery   | 39.246002                        | -75.986618                        | (1) Travilla Wharf                          |
| Use: February 1 to May 31, inclusive   | 39.245350                        | -75.985878                        | (2) Marshy point across from Travilla Wharf |
| Shallow Water Submerged Aquatic Vegetation Use: April 1 to October 30, inclusive | 39.254440                        | -75.839638                        | (3) Andover Branch 900 feet above Rt. 313   |
| Application Depth: 0.5 meters  |                                  |                                   |   |
| Open Water Fish and Shellfish Use:   |                                  |                                   |   |
| January 1 to December 31, inclusive  |                                  |                                   |   |
| Shellfish Harvest: See §G(2)(e) of this regulation                               |                                  |                                   |   |

(b) Middle Chester River Oligohaline (CHSOH):

| Designated Uses Present in Segment   | Latitude<br>(Decimal<br>Degrees) | Longitude<br>(Decimal<br>Degrees) | Limits                                      |
|--|----------------------------------|-----------------------------------|---|
| Migratory Spawning and Nursery   | 39.147564                        | -76.086426                        | (1) 1,100 feet below Browns Creek           |
| Use: February 1 to May 31, inclusive   | 39.146572                        | -76.075684                        | (2) Northwest Pt., west of Riverview        |
| Shallow Water Submerged Aquatic Vegetation Use: April 1 to October 30, inclusive | 39.245350                        | -75.985878                        | (3) Marshy point across from Travilla Wharf |
| Application Depth: 0.5 meters  | 39.246002                        | -75.986618                        | (4) Travilla Wharf                          |
| Open Water Fish and Shellfish Use:   |                                  |                                   |   |

January 1 to December 31, inclusive  
Shellfish Harvest: See §G(2)(e) of  
this regulation

(c) Lower Chester River Mesohaline (CHSMH):

| Designated Uses Present in Segment  | Latitude<br>(Decimal<br>Degrees)    | Longitude<br>(Decimal<br>Degrees)      | Limits   |
|---|-------------------------------------|--|--|
| Migratory Spawning and Nursery<br>Use: February 1 to May 31, inclusive  | 39.029720<br>39.016422              | -76.242516<br>-76.296959               | (1) Wickes Beach, Eastern Neck Island<br>(2) Kent Island, 1,600 feet N of Grollman Rd.                                 |
| Shallow Water Submerged Aquatic<br>Vegetation Use: April 1 to October<br>30, inclusive  | 38.970539<br>38.970455<br>39.146572 | -76.248413<br>-76.246330<br>-76.075684 | (3) Rt. 50, west side of Kent Narrows<br>(4) Rt. 50, east side of Kent Narrows<br>(5) Northwest Pt., west of Riverview |
| Application Depth: 1.0 meters   | 39.147564                           | -76.086426                             | (6) 1,100 feet below Browns Creek  |
| Open Water Fish and Shellfish Use:<br>January 1 to December 31, inclusive   | 39.056882                           | -76.220903                             | (7) South end of Eastern Neck, east of Route 445<br>Bridge   |
| Seasonal Deep Water Fish and<br>Shellfish Use Upper pycnocline to<br>lower pycnocline from June 1 to<br>September 30, inclusive | 39.054563                           | -76.220229                             | (8) Northern tip of Eastern Neck Island, east of Route<br>445 Bridge   |
| Seasonal Deep Channel Refuge Use<br>Lower pycnocline boundary to<br>bottom from June 1 to September 30,<br>inclusive            |                                     |  |  |
| Shellfish Harvest: See §G(2)(e) of<br>this regulation   |                                     |  |  |

(d) Eastern Bay Mesohaline (EASMH):

| Designated Uses Present in Segment  | Latitude<br>(Decimal<br>Degrees) | Longitude<br>(Decimal<br>Degrees) | Limits   |
|---|----------------------------------|-----------------------------------|--|
| Migratory Spawning and Nursery<br>Use: February 1 to May 31, inclusive  | 38.836365<br>38.752529           | -76.369392<br>-76.340332          | (1) Kent Pt.<br>(2) 1,500 feet NE of Green Marsh Pt.                           |
| Shallow Water Submerged Aquatic<br>Vegetation   | 38.970455<br>38.970539           | -76.246330<br>-76.248413          | (3) Rt. 50, East side of Kent Narrows<br>(4) Rt. 50, West side of Kent Narrows |
| Use: April 1 to October 30, inclusive   |                                  |                                   |  |
| Application Depth: 2.0 meters   |                                  |                                   |  |
| NGZ present   |                                  |                                   |  |
| Open Water Fish and Shellfish Use:<br>January 1 to December 31, inclusive   |                                  |                                   |  |
| Seasonal Deep Water Fish and<br>Shellfish Use Upper pycnocline to<br>lower pycnocline from June 1 to<br>September 30, inclusive |                                  |                                   |  |
| Seasonal Deep Channel Refuge Use<br>Lower pycnocline boundary to<br>bottom from from June 1 to<br>September 30, inclusive       |                                  |                                   |  |
| Shellfish Harvest: See §G(2)(e) of<br>this regulation   |                                  |                                   |  |

| Use Waters | MCGS or<br>Latitude/<br>Longitude | Limits |
|------------|-----------------------------------|--------|
|------------|-----------------------------------|--------|

(e) Shellfish Harvest Subcategory. All estuarine portions of tributaries except:

|                                   |  |                 |
|-----------------------------------|--|-----------------|
| (i) Chester River and tributaries | 1066.5/502                               | Above Rt. 213   |
| (ii) Corsica River                | 1060.4/448.4                             | Above Earl Cove |
| (iii) Pincy Creek                 | From<br>1010.7/419.9<br>to<br>1012/418.8 | Above Rt. 50    |
| (iv) Winchester Creek             | 1026.5/416.1                             | Above mouth     |
| (v) St. Michaels Harbor           | 1023/348.7                               |                 |

(3) Use III: None.

(4) Use III-P: None.

(5) Use IV: None.

(6) Use IV-P: None.

H. Sub-Basin 02-13-06: Elk River Area.

(1) Use I-P:

|   |              |                                  |
|---|--------------|----------------------------------|
| (a) Big Elk Creek and all tributaries   | 1129.3/647.5 | Above MD Route 213               |
| (b) Northeast Creek and all tributaries | 1096.6/643.1 | Above confluence with Stoney Run |
| (c) Mill Creek and all tributaries      | 1065.9/636   | Above U.S. Route 40              |

(2) Use II:

(a) Northeast River Tidal Fresh (NORTF):

| Designated Uses Present in Segment   | Latitude<br>(Decimal<br>Degrees) | Longitude<br>(Decimal<br>Degrees) | Limits  |
|--|----------------------------------|-----------------------------------|---|
| Migratory Spawning and Nursery<br>Use: February 1 to May 31, inclusive   | 39.540794<br>39.529629           | -76.002899<br>-75.979271          | (1) East side of Carpenter Pt.<br>(2) Red Pt.         |
| Shallow Water Submerged Aquatic<br>Vegetation<br>Use: April 1 to October 30, inclusive<br>Application Depth: 0.5 meters<br>NGZ present<br>Open Water Fish and Shellfish Use:<br>January 1 to December 31, inclusive<br>Shellfish Harvest: See §H(2)(h) of this<br>regulation | 39.608879                        | -75.937988                        | (3) 750 feet above RR bridge, 1,500 feet below Rt. 40 |

(b) Chesapeake & Delaware (C&D) Canal Oligohaline (C&DOH):

| Designated Uses Present in Segment  | Latitude<br>(Decimal<br>Degrees) | Longitude<br>(Decimal<br>Degrees) | Limits  |
|---|----------------------------------|-----------------------------------|---|
| Migratory Spawning and Nursery<br>Use: February 1 to May 31, inclusive  | 39.525536<br>39.523182           | -75.874619<br>-75.871521          | (1) East side of Welch Pt.<br>(2) West of where the road north from Randalia ends |
| Shallow Water Submerged Aquatic<br>Vegetation<br>Use: April 1 to October 30, inclusive<br>Application Depth: 0.5 meters | 39.534616<br>39.536623           | -75.779424<br>-75.779582          | (3) MD/DE State Line-southern shore<br>(4) MD/DE State Line-northern shore        |

Open Water Fish and Shellfish Use:  
January 1 to December 31, inclusive  
Shellfish Harvest: See §H(2)(h) of  
this regulation

(c) Bohemia River Oligohaline (BOHOH):

| Designated Uses Present in Segment                    | Latitude<br>(Decimal<br>Degrees) | Longitude<br>(Decimal<br>Degrees) | Limits                                       |
|---|----------------------------------|-----------------------------------|--|
| Migratory Spawning and Nursery                        | 39.486473                        | -75.923767                        | (1) Town Pt.                                 |
| Use: February 1 to May 31, inclusive                  | 39.474773                        | -75.940498                        | (2) East of Ford Landing on Veazey Neck      |
| Shallow Water Submerged Aquatic<br>Vegetation         | 39.461319                        | -75.783554                        | (3) 600 feet below where Sandy Branch enters |
| Use: April 1 to October 30, inclusive                 |                                  |                                   |  |
| Application Depth: 0.5 meters                         |                                  |                                   |  |
| Open Water Fish and Shellfish Use:                    |                                  |                                   |  |
| January 1 to December 31, inclusive                   |                                  |                                   |  |
| Shellfish Harvest: See §H(2)(h) of<br>this regulation |                                  |                                   |  |

(d) Elk River Oligohaline (ELKOH1):

| Designated Uses Present in Segment                    | Latitude<br>(Decimal<br>Degrees) | Longitude<br>(Decimal<br>Degrees) | Limits  |
|---|----------------------------------|-----------------------------------|---|
| Migratory Spawning and Nursery                        | 39.449200                        | -76.007698                        | (1) Turkey Pt.                                      |
| Use: February 1 to May 31, inclusive                  | 39.429420                        | -75.997681                        | (2) 1,300 feet SW of Wroth Pt.                      |
| Shallow Water Submerged Aquatic                       | 39.474773                        | -75.940498                        | (3) East of Ford Landing on Veazey Neck             |
| Vegetation  | 39.486473                        | -75.923767                        | (4) Town Pt.  |
| Use: April 1 to October 30, inclusive                 | 39.523182                        | -75.871521                        | (5) West of where the road north from Randalia ends |
| Application Depth: 2.0 meters                         | 39.525536                        | -75.874619                        | (6) East side of Welch Pt.                          |
| Open Water Fish and Shellfish Use:                    | 39.544392                        | -75.855301                        | (7) Paddy Biddle Cove                               |
| January   | 39.545540                        | -75.876144                        | (8) 0.6 miles south of Elkmore                      |
| 1 to December 31, inclusive                           |                                  |                                   |   |
| Shellfish Harvest: See §H(2)(h) of<br>this regulation |                                  |                                   |   |

(e) Elk River Oligohaline (ELKOH2):

| Designated Uses Present in Segment                    | Latitude<br>(Decimal<br>Degrees) | Longitude<br>(Decimal<br>Degrees) | Limits                          |
|---|----------------------------------|-----------------------------------|---------------------------------|
| Migratory Spawning and Nursery                        | 39.545540                        | -75.876144                        | (1) 0.6 miles south of Elkmore  |
| Use: February 1 to May 31, inclusive                  | 39.544392                        | -75.855301                        | (2) Paddy Biddle Cove           |
| Shallow Water Submerged Aquatic                       | 39.607624                        | -75.822853                        | (3) Elkton-500 feet below Rt. 7 |
| Vegetation  |                                  |                                   |                                 |
| Use: April 1 to October 30, inclusive                 |                                  |                                   |                                 |
| Application Depth: 0.5 meters                         |                                  |                                   |                                 |
| Open Water Fish and Shellfish Use:                    |                                  |                                   |                                 |
| January 1 to December 31, inclusive                   |                                  |                                   |                                 |
| Shellfish Harvest: See §H(2)(h) of<br>this regulation |                                  |                                   |                                 |

(f) Sassafras River Oligohaline (SASOH1):

| Designated Uses Present in Segment  | Latitude<br>(Decimal<br>Degrees) | Longitude<br>(Decimal<br>Degrees) | Limits                             |
|---|----------------------------------|-----------------------------------|------------------------------------|
| Migratory Spawning and Nursery<br>Use: February 1 to May 31, inclusive    | 39.389511                        | -76.040848                        | (1) Grove Pt.                      |
| Shallow Water Submerged Aquatic<br>Vegetation                             | 39.372025                        | -76.101227                        | (2) 2,850 feet east of Howells Pt. |
|   | 39.371868                        | -75.955750                        | (3) 0.66 miles NW of Freeman Creek |
| Use: April 1 to October 30, inclusive                                     | 39.378330                        | -75.961472                        | (4) Cassidy Wharf                  |
| Application Depth: 2.0 meters   |                                  |                                   |                                    |
| NGZ present   |                                  |                                   |                                    |
| Open Water Fish and Shellfish Use:<br>January 1 to December 31, inclusive |                                  |                                   |                                    |
| Shellfish Harvest: See §H(2)(h) of<br>this regulation                     |                                  |                                   |                                    |

(g) Sassafras River Oligohaline (SASOH2):

| Designated Uses Present in Segment  | Latitude<br>(Decimal<br>Degrees) | Longitude<br>(Decimal<br>Degrees) | Limits                             |
|---|----------------------------------|-----------------------------------|------------------------------------|
| Migratory Spawning and Nursery<br>Use: February 1 to May 31, inclusive    | 39.378330                        | -75.961472                        | (1) Cassidy Wharf                  |
| Shallow Water Submerged Aquatic<br>Vegetation                             | 39.371868                        | -75.955750                        | (2) 0.66 miles NW of Freeman Creek |
| Use: April 1 to October 30, inclusive                                     | 39.376785                        | -75.806549                        | (3) 350 feet upstream of Rt. 301   |
| Application Depth: 0.5 meters   |                                  |                                   |                                    |
| Open Water Fish and Shellfish Use:<br>January 1 to December 31, inclusive |                                  |                                   |                                    |
| Shellfish Harvest: See §H(2)(h) of<br>this regulation                     |                                  |                                   |                                    |

| Use Waters  | MCGS or Latitude/<br>Longitude       | Limits  |
|---|--------------------------------------|---|
| (h) Shellfish Harvest Subcategory. All<br>estuarine portions of tributaries except: |                                      |   |
| (i) Elk River and tributaries   | From 1112.8/617 to<br>1114.8/613.9   | Above line from Bull Minnow Pt. to Courthouse Pt. |
| (ii) Bohemia River and tributaries  | From 1108/603.7 to<br>1109/600       | Above line from Rich Pt. to Baltery Pt.           |
| (iii) Sassafras River and tributaries   | 1088.6/561.5                         | Above Ordinary Pt.                                |
| (iv) Stillpond Creek and tributaries (Still<br>Pond)                                | 1044/547                             | Above Kinnaird Pt.                                |
| (v) Worton Creek  | From 1031.4/532 to<br>1032.5/534.7   | Above mouth                                       |
| (vi) Fairlee Creek  | From 1023.6/524 to<br>1026/527.5     | Above mouth                                       |
| (vii) Northeast River   | From 1081.3/623.3 to<br>1087.6/619.1 | Above mouth                                       |
| (3) Use III:  |                                      |   |
| (a) Principio Creek and all tributaries   | 1073/634.5                           |   |
| (b) Rock Run (Cecil County)   | Confluence:                          | Confluence with Susquehanna River to pond outlet  |

1045.9/649.4                      at the headwaters  
 Lat: 39°36'48.73"  
 Long: 76°07'36.99"  
 Pond outlet:  
 1056.4/655.3  
 Lat: 39°37'45.41"  
 Long: 76°05'21.49

(4) Use III-P: None.

(5) Use IV: None.

(6) Use IV-P: None.

I. Sub-Basin 02-13-07: Bush River Area.

(1) Use I-P: Winters Run and all tributaries, including Atkisson Reservoir      995.5/585.5      From Otter Point Creek to upstream boundary of Atkisson Reservoir

(2) Use II:

(a) Bush River Oligohaline (BSHOH):

| Designated Uses Present in Segment   | Latitude<br>(Decimal<br>Degrees) | Longitude<br>(Decimal<br>Degrees) | Limits                                   |
|--|----------------------------------|-----------------------------------|--|
| Migratory Spawning and Nursery<br>Use: February 1 to May 31, inclusive   | 39.339172                        | -76.256592                        | (1) 800 feet upriver of Leges Pt.        |
| Shallow Water Submerged Aquatic<br>Vegetation<br>Use: April 1 to October 30, inclusive<br>Application Depth: 0.5 meters            | 39.351715                        | -76.232986                        | (2) Mouth of Abbey Creek                 |
| Open Water Fish and Shellfish Use:<br>January 1 to December 31, inclusive<br>Shellfish Harvest: See §I(2)(b) of<br>this regulation | 39.482510                        | -76.215805                        | (3) Church Creek, at the railroad tracks |

| Use Waters  | MCGS or<br>Latitude/<br>Longitude     | Limits  |
|---|---------------------------------------|---|
| (b) Shellfish Harvest Subcategory. All estuarine<br>portions of tributaries except: |                                       |   |
| (i) Bush River and tributaries  | From<br>1010.5/576 to<br>1014.1/574.1 | Above line from Fairview Pt. to Chillbury Pt. |
| (ii) Romney Creek   | 1022.3/567.5                          | Above Briar Pt.                               |
| (iii) Swan Creek and tributaries  | From<br>1050/603.5 to<br>1047.5/604.2 | Above mouth                                   |
| (3) Use III: Bynum Run and all tributaries  | 1008.9/597.4                          |   |
| (4) Use III-P: None.  |                                       |   |
| (5) Use IV: None.   |                                       |   |
| (6) Use IV-P: Winters Run and all tributaries                                       | 982.2/604.8                           | Above Atkisson Reservoir                      |

J. Sub-Basin 02-13-08: Gunpowder River Area.

(1) Use I-P: None.

(2) Use II:

(a) Gunpowder River Oligohaline (GUNOH2):

| Designated Uses Present in Segment   | Latitude<br>(Decimal<br>Degrees) | Longitude<br>(Decimal<br>Degrees) | Limits  |
|--|----------------------------------|-----------------------------------|---|
| Migratory Spawning and Nursery<br>Use: February 1 to May 31, inclusive                 | 39.358330                        | -76.345024                        | (1) Cunninghamhill Cove, mouth of unnamed creek |
| Shallow Water Submerged Aquatic<br>Vegetation Use: April 1 to October<br>30, inclusive | 39.356564                        | -76.322929                        | (2) Maxwell Pt.                                 |
| Application Depth: 0.5 meters  | 39.412685                        | -76.400780                        | (3) Gunpowder Falls, 1,500 feet below Rt. 7     |
| Open Water Fish and Shellfish Use:<br>January 1 to December 31, inclusive              |                                  |                                   |   |
| Shellfish Harvest: See §J(2)(d) of<br>this regulation                                  |                                  |                                   |   |

(b) Mouth of Gunpowder River Oligohaline (GUNOH1):

| Designated Uses Present in Segment   | Latitude<br>(Decimal<br>Degrees) | Longitude<br>(Decimal<br>Degrees) | Limits   |
|--|----------------------------------|-----------------------------------|--|
| Migratory Spawning and Nursery<br>Use: February 1 to May 31, inclusive                 | 39.316414                        | -76.331039                        | (1) 170 feet S of east side of bridge to Carroll Island        |
| Shallow Water Submerged Aquatic<br>Vegetation Use: April 1 to October<br>30, inclusive | 39.312862                        | -76.321449                        | (2) Carroll Pt.  |
| Application Depth: 2.0 meters  | 39.312767                        | -76.321190                        | (3) Carroll Pt.  |
| Open Water Fish and Shellfish Use:<br>January 1 to December 31, inclusive              | 39.303204                        | -76.296249                        | (4) Rickett Pt. at end of Ricketts Pt. Rd.                     |
| Shellfish Harvest: See §J(2)(d) of<br>this regulation                                  | 39.356564                        | -76.322929                        | (5) Maxwell Pt.  |
|  | 39.358330                        | -76.345024                        | (6) Cunninghamhill Cove, mouth of unnamed creek                |
|  | 39.326569                        | -76.361801                        | (7) 170 feet South of West side of bridge to Carroll<br>Island |
|  | 39.326477                        | -76.361130                        | (8) 170 feet S of east side of bridge to Carroll Island        |

(c) Middle River Oligohaline (MIDOH):

| Designated Uses Present in Segment  | Latitude<br>(Decimal<br>Degrees) | Longitude<br>(Decimal<br>Degrees) | Limits  |
|---|----------------------------------|-----------------------------------|---|
| Migratory Spawning and Nursery<br>Use: February 1 to May 31, inclusive    | 39.286442                        | -76.384102                        | (1) North shore of Holly Beach                              |
| Shallow Water Submerged Aquatic<br>Vegetation                             | 39.309422                        | -76.342964                        | (2) Carroll Island, between Weir Pt. and Hawthorn Cove      |
| Use: April 1 to October 30, inclusive                                     | 39.326477                        | -76.361130                        | (3) 170 feet S of east side of bridge to Carroll Island     |
| Application Depth: 2.0 meters   | 39.326569                        | -76.361801                        | (4) 170 feet South of west side of bridge to Carroll Island |
| Open Water Fish and Shellfish Use:<br>January 1 to December 31, inclusive | 39.329792                        | -76.446922                        | (5) 150 feet downstream of RR tracks, above Eastern<br>Blvd |
| Shellfish Harvest: See §J(2)(d) of<br>this regulation                     |                                  |                                   |   |

|            |                                   |        |
|------------|-----------------------------------|--------|
| Use Waters | MCGS or<br>Latitude/<br>Longitude | Limits |
|------------|-----------------------------------|--------|

(d) Shellfish Harvest Subcategory. All estuarine

portions of tributaries except:

- |  |                                  |   |
|--|----------------------------------|---|
| (i) Gunpowder River and all tributaries            | From 987/561.5<br>to 991.2/555.5 | Above line from Oliver Pt. to Maxwell Pt.                                 |
| (ii) Middle River                                  | From 972/536.1<br>to 970/532.5   | Above line from Log Pt. to Turkey Pt.                                     |
| (3) Use III:                                       |                                  |   |
| (a) Little Gunpowder Falls and all tributaries     | 976.8/578.8                      | Above B&O railroad bridge 3/4 mile south of Rt. 7 (Old Philadelphia Road) |
| (b) Long Green Run and all tributaries             | 950/584                          |   |
| (c) Sweathouse Branch and all tributaries          | 950/584                          |   |
| (4) Use III-P: Gunpowder Falls and all tributaries | 930.8/578.9                      | Above Loch Raven Dam  |
| (5) Use IV: Whitemarsh Run and all tributaries     | 964/564                          |   |
| (6) Use IV-P: None.                                |                                  |   |

K. Sub-Basin 02-13-09: Patapsco River Area.

(1) Use I-P:

- |   |             |                         |
|---|-------------|-------------------------|
| (a) Liberty Reservoir   | 830.9/562.1 | Above Liberty Dam       |
| (b) All tributaries to West Branch Patapsco River   | 828.8/621.4 |                         |
| (c) All tributaries to North Branch Patapsco River except those designated below as Use III-P or Use IV-P | 835.8/604.8 | Above Liberty Reservoir |

(2) Use II: Tidal Waters:

(a) Back River Oligohaline (BACOH):

| Designated Uses Present in Segment  | Latitude<br>(Decimal<br>Degrees) | Longitude<br>(Decimal<br>Degrees) | Limits   |
|---|----------------------------------|-----------------------------------|--|
| Migratory Spawning and Nursery<br>Use: February 1 to May 31, inclusive  | 39.231178<br>39.248951           | -76.408920<br>-76.410530          | (1) Swan Pt., in line with 11th St.<br>(2) Rocky Pt. Park, between Claybank and Cedar Pts. |
| Shallow Water Submerged Aquatic<br>Vegetation<br>Use: April 1 to October 30, inclusive<br>Application Depth: 0.5 meters<br>Open Water Fish and Shellfish Use:<br>January 1 to December 31, inclusive<br>Shellfish Harvest: None | 39.307873                        | -76.520416                        | (3) Moores Run, 1.25 miles above I-695   |

(b) Patapsco River Mesohaline (PATMH):

| Designated Uses Present in Segment                                     | Latitude<br>(Decimal<br>Degrees) | Longitude<br>(Decimal<br>Degrees) | Limits  |
|--|----------------------------------|-----------------------------------|---|
| Migratory Spawning and Nursery Use:<br>February 1 to May 31, inclusive | 39.131855<br>39.195377           | -76.435081<br>-76.444511          | (1) Bodkin Neck between Cedar and Bodkin Pts.<br>(2) North Pt. south of Fort Howard |
| Shallow Water Submerged Aquatic  | 39.275375                        | -76.654480                        | (3) Gwynns Falls, upstream end of Carroll Park                                      |

Vegetation Use: April 1 to October 30, inclusive

Application Depth: 1.0 meters

NGZ present

Open Water Fish and Shellfish Use:

January 1 to December 31, inclusive

Seasonal Deep Water Fish and

Shellfish Use Upper pycnocline to

lower pycnocline from June 1 to

September 30, inclusive

Seasonal Deep Channel Refuge.

Lower pycnocline boundary to bottom

from from June 1 to September 30,

inclusive

Shellfish Harvest: See §K(2)(c) of this regulation

Deep  
Channel

Use NAD 27

Use:

39.18378

-76.40383

(1) Patapsco River mainstem: Brewerton Channel, eastern extension at line connecting North Pt. and Bodkin Pt.

39.21990

-76.52578

(2) Patapsco River mainstem: Brewerton Channel at Key Bridge (I-695)

39.21990

-76.52578

(3) Patapsco River mainstem: Fort McHenry Channel, at Key Bridge (I-695)

39.26194

-76.57455

(4) Patapsco River mainstem: Fort McHenry Channel at Rt. 895 Tunnel

39.18778

-76.57767

(5) Curtis Bay Channel at intersection with Fort McHenry Channel

39.22219

-76.57513

(6) Curtis Bay Channel at intersection with Curtis Creek

39.22430

-76.52908

(7) Curtis Bay Channel at channel terminus

39.25417

-76.57176

(8) Middle Branch: Ferry Bar Channel at intersection with Fort McHenry Channel

39.25306

-76.60763

(9) Middle Branch: Ferry Bar Channel, western terminus anchorages

39.26194

-76.57455

(10) Northwest Branch: East Channel at intersection with Fort McHenry Channel

39.27508

-76.57621

(11) Northwest Branch: East Channel at northern terminus

39.27133

-76.57589

(12) Northwest Branch: Intersection of East and West Channels

39.27731

-76.59934

(13) Northwest Branch: West Channel at northern terminus

Note: Authorized federal and non-federal anchorages associated with the Brewerton, Fort McHenry, Curtis Bay, Ferry Bar, East, and West Channels shall be considered part of the navigation channel system for the purposes of application of designated uses and criteria pursuant to COMAR 26.08.02.02C(1)(f)(i)-(ii) and COMAR 26.08.02.03-3C(9)(e)(I).

(c) Shellfish Harvest Subcategory: Estuarine portions of Patapsco River mainstem except the Patapsco River and all tributaries above line from Rock Pt. to North Pt.

| Use Waters   | MCGS or Latitude/<br>Longitude | Limits  |
|--|--------------------------------|---|
| (3) Use III:   |                                |   |
| (a) Brice Run and all tributaries                                    | 850/540                        |   |
| (b) Piney Run and all tributaries                                    | From 828/554 to 815.8/563.6    | From mouth to Slacks Road (on Springfield State Hospital grounds) |
| (c) Jones Falls and all tributaries                                  | 897.7/567.6                    | Above Lake Roland   |
| (d) Red Run and all tributaries                                      | 863/572.4                      |   |
| (e) Gwynns Falls and all tributaries                                 | 861.5/578.5                    | Above Reisterstown Road   |
| (f) Gillis Falls and all tributaries                                 | 782/557                        |   |
| (g) South Branch Patapsco and all tributaries                        | 782/557                        | Above confluence with Gillis Falls tributaries                    |
| (h) Unnamed tributary to the South Branch Patapsco River at Henryton | 823.9/552.9                    |   |

and all tributaries to this unnamed tributary

|  |  |   |
|--|--|---|
| (i) Roaring Run (Carroll County) Patapsco River    | Confluence: 831.7/610.6<br>Lat: 39°30'35.60"<br>Long: 76°53'13.86"<br>Headwaters: 823.5/621.2<br>Lat: 39°32'20.66"<br>Long: 76°54'58.51" | Confluence with the North Branch Patapsco River to headwaters |
| (4) Use III-P:                                     |  |   |
| (a) Piney Run and all tributaries                  | 815.8/563.6  | Above Slacks Road (on Springfield State Hospital grounds)     |
| (b) Morgan Run and all tributaries                 | 813.8/589.6  |   |
| (c) Norris Run and all tributaries                 | 835.1/592.6  |   |
| (d) Cooks Branch and all tributaries               | 836.2/584.4  |   |
| (e) Keysers Run and all tributaries                | 833.8/596.8  |   |
| (f) Beaver Run and all tributaries                 | 828.3/602.1  |   |
| (g) Snowdens Run and all tributaries               | 825/572  |   |
| (h) Stillwater Creek and all tributaries           | 824.8/570.9  |   |
| (i) Carroll Highlands Run and all tributaries      | 825.5/567.4  |   |
| (j) Autumn Run and all tributaries                 | 825.7/567  |   |
| (k) Locust Run and all tributaries                 | 839.1/572.9  |   |
| (l) Glen Falls Run and all tributaries             | 837.4/605.1  |   |
| (m) East Branch Patapsco River and all tributaries | 830.1/620.4  |   |
| (5) Use IV:  |  |   |
| (a) South Branch Patapsco River                    | 833.4/552.2  | Mainstem only   |
| (b) Jones Falls                                    | From 908/538.5 to 901/563  | From North Ave. to Lake Roland Dam                            |
| (c) Herring Run and all tributaries                | 929.5/537  | Above Route I-95  |
| (d) Stony Run and all tributaries                  | 905/541  |   |
| (e) Dead Run and all tributaries                   | 888/536.5  |   |
| (f) Stemmers Run and all tributaries               | 941.4/553.8  | Above Route I-95  |
| (6) Use IV-P:                                      |  |   |
| (a) North Branch Patapsco River                    | 833.4/552.2  | Mainstem only above Liberty Reservoir                         |
| (b) West Branch Patapsco River                     | 830.1/620.3  | Mainstem only   |
| (c) Cranberry Branch and all tributaries           | 888.1/637.3  | Above MD Route 852 (Old Manchester Road)                      |

L. Sub-Basin 02-13-10: West Chesapeake Bay Area.

(1) Use I-P: None.

(2) Use II:

(a) Magothy River Mesohaline (MAGMH):

| Designated Use Present in Segment  | Latitude<br>(Decimal<br>Degrees)    | Longitude<br>(Decimal<br>Degrees)      | Limits   |
|--|-------------------------------------|--|--|
| Migratory Spawning and Nursery<br>Use: February 1 to May 31,<br>inclusive              | 39.039185<br>39.074715<br>39.114807 | -76.414330<br>-76.422539<br>-76.548195 | (1) Between Beacon Hill and Tydings on the Bay<br>(2) East side Gibson I. across from Hapenny Way<br>(3) End of estuary below Catherine Ave. |
| Shallow Water Submerged Aquatic<br>Vegetation Use: April 1 to October<br>30, inclusive |                                     |  |  |
| Application Depth: 1.0 meters  |                                     |  |  |
| NGZ present  |                                     |  |  |
| Open Water Fish and Shellfish Use:<br>January 1 to December 31, inclusive              |                                     |  |  |
| Shellfish Harvest: See §L(2)(f) of<br>this regulation                                  |                                     |  |  |

(b) Severn River Mesohaline (SEVMH):

| Designated Uses Present in Segment   | Latitude<br>(Decimal<br>Degrees) | Longitude<br>(Decimal<br>Degrees) | Limits  |
|--|----------------------------------|-----------------------------------|---|
| Migratory Spawning and Nursery<br>Use: February 1 to May 31, inclusive                 | 38.946095<br>38.976032           | -76.455879<br>-76.452377          | (1) Bay Ridge, near Bainbridge Ave<br>(2) Greenbury Pt., 800 feet up east side from the tip |
| Shallow Water Submerged Aquatic<br>Vegetation Use: April 1 to October<br>30, inclusive | 39.079697                        | -76.623398                        | (3) Severn Run, 1,100 feet downstream of Veterans Hwy.                                      |
| Application Depth: 1.0 meters  |                                  |                                   |   |
| Open Water Fish and Shellfish Use:<br>January 1 to December 31, inclusive              |                                  |                                   |   |
| Shellfish Harvest: See §L(2)(f) of this<br>regulation                                  |                                  |                                   |   |

(c) South River Mesohaline (SOUMH):

| Designated Uses Present in Segment   | Latitude<br>(Decimal<br>Degrees) | Longitude<br>(Decimal<br>Degrees) | Limits   |
|--|----------------------------------|-----------------------------------|--|
| Migratory Spawning and Nursery<br>Use: February 1 to May 31, inclusive                 | 38.888672<br>38.886829           | -76.489876<br>-76.475616          | (1) Saunders Pt., south of Mayo Beach Park<br>(2) 0.8 miles east of Saunders Pt. |
| Shallow Water Submerged Aquatic<br>Vegetation Use: April 1 to October<br>30, inclusive | 38.907860<br>38.983105           | -76.466240<br>-76.606232          | (3) Southern shore of Thomas Pt. Park<br>(4) 700 feet upstream of Rt. 50         |
| Application Depth: 1.0 meters  |                                  |                                   |  |
| NGZ present  |                                  |                                   |  |
| Open Water Fish and Shellfish Use:<br>January 1 to December 31, inclusive              |                                  |                                   |  |

(d) Rhode River Mesohaline (RHDMH):

| Designated Uses Present in Segment | Latitude<br>(Decimal<br>Degrees) | Longitude<br>(Decimal<br>Degrees) | Limits  |
|------------------------------------|----------------------------------|-----------------------------------|---|
| Migratory Spawning and Nursery     | 38.867775                        | -76.519608                        | (1) Salt Pond at the mouth of the Rhode River |

|  |           |            |  |
|--|-----------|------------|--|
| Use: February 1 to May 31, inclusive               | 38.864788 | -76.485870 | (2) 1.2 miles ESE of Dutchman Pt.                        |
| Shallow Water Submerged Aquatic                    | 38.886829 | -76.475616 | (3) 0.8 miles east of Saunders Pt.                       |
| Vegetation   | 38.888672 | -76.489876 | (4) Saunders Pt., south of Mayo Beach Park               |
| Use: April 1 to October 30, inclusive              | 38.883629 | -76.554649 | (5) Muddy Creek, 1,200 feet below N and S Forks converge |
| Application Depth: 0.5 meters                      |           |            |  |
| NGZ present  |           |            |  |
| Open Water Fish and Shellfish Use:                 |           |            |  |
| January 1 to December 31, inclusive                |           |            |  |
| Shellfish Harvest: See §L(2)(f) of this regulation |           |            |  |

(e) West River Mesohaline (WSTMH):

| Designated Uses Present in Segment                 | Latitude<br>(Decimal<br>Degrees) | Longitude<br>(Decimal<br>Degrees) | Limits  |
|--|----------------------------------|-----------------------------------|---|
| Migratory Spawning and Nursery                     | 38.848892                        | -76.493805                        | (1) Felicity Cove, 250 feet north of Bay Rd.  |
| Use: February 1 to May 31, inclusive               | 38.864788                        | -76.485870                        | (2) 1.2 miles ESE of Dutchman Pt.             |
| Shallow Water Submerged Aquatic                    | 38.867775                        | -76.519608                        | (3) Salt Pond at the mouth of the Rhode River |
| Vegetation   | 38.822258                        | -76.551514                        | (4) 2,400 feet downstream of Shady Side Rd.   |
| Use: April 1 to October 30, inclusive              |                                  |                                   |   |
| Application Depth: 0.5 meters                      |                                  |                                   |   |
| NGZ present  |                                  |                                   |   |
| Open Water Fish and Shellfish Use:                 |                                  |                                   |   |
| January 1 to December 31, inclusive                |                                  |                                   |   |
| Shellfish Harvest: See §L(2)(f) of this regulation |                                  |                                   |   |

| Use Waters  | MCGS or<br>Latitude/<br>Longitude | Limits  |
|---|-----------------------------------|---|
| (f) Shellfish Harvest Subcategory. All estuarine portions of tributaries except:              |                                   |   |
| (i) Magothy River and tributaries   | 936.9/455                         | Above Henderson Pt.                                   |
| (ii) Severn River and tributaries   | 920.6/451                         | Above mouth of Forked Creek                           |
| (iii) South River and tributaries   | 918.8/410.1                       | Above Porter Pt.                                      |
| (iv) Rockhold Creek and tributaries   | 925.7/315.8                       | Above Mason Beach Road                                |
| (v) Tracys Creek  | 924.5/344.2                       | Above Rt. 256   |
| (3) Use III: Jabez Branch and all tributaries   | 905/455                           |   |
| (4) Use III-P: None.  |                                   |   |
| (5) Use IV: Severn Run and all tributaries  | 907.3/454.1                       | Above Rt. 3   |
| (6) Use IV-P: None.   |                                   |   |
| M. Sub-Basin 02-13-11: Patuxent River Area.   |                                   |   |
| (1) Use I-P:  |                                   |   |
| (a) Little Patuxent River and all tributaries   | 866.5/453.8                       | Above Old Forge Bridge (1 mile south of MD Route 198) |
| (b) Patuxent River and all tributaries except those designated below as Use III-P or Use IV-P | 845.8/467.4                       | Above Rocky Gorge Dam                                 |
| (2) Use II:   |                                   |   |

(a) Upper Patuxent River Tidal Fresh (PAXTF):

| Designated Uses Present in Segment                    | Latitude<br>(Decimal<br>Degrees) | Longitude<br>(Decimal<br>Degrees) | Limits   |
|---|----------------------------------|-----------------------------------|--|
| Migratory Spawning and Nursery                        | 38.700325                        | -76.695824                        | (1) On Marshy Point 0.5 miles N of Hotschkins Branch |
| Use: February 1 to May 31, inclusive                  | 38.700516                        | -76.694160                        | (2) 0.8 miles north of Jones Pt.                     |
| Shallow Water Submerged Aquatic                       | 38.874958                        | -76.677834                        | (3) Near unnamed stream south of Mt. Nebo Branch     |
| Vegetation Use: April 1 to October                    | 38.785023                        | -76.712456                        | (4) Mouth of Western Branch, east side               |
| 30, inclusive   | 38.784637                        | -76.713326                        | (5) Mouth of Western Branch, west side               |
| Application Depth: 0.5 meters                         |                                  |                                   |  |
| Open Water Fish and Shellfish Use:                    |                                  |                                   |  |
| January 1 to December 31, inclusive                   |                                  |                                   |  |
| Shellfish Harvest: See §M(2)(j) of<br>this regulation |                                  |                                   |  |

(b) Western Branch Patuxent River Tidal Fresh (WBRTF):

| Designated Uses Present in Segment                    | Latitude<br>(Decimal<br>Degrees) | Longitude<br>(Decimal<br>Degrees) | Limits  |
|---|----------------------------------|-----------------------------------|---|
| Migratory Spawning and Nursery                        | 38.784637                        | -76.713326                        | (1) Mouth of Western Branch, west side            |
| Use: February 1 to May 31, inclusive                  | 38.785023                        | -76.712456                        | (2) Mouth of Western Branch, east side            |
| Shallow Water Submerged Aquatic                       | 38.797241                        | -76.729507                        | (3) Where West. Branch narrows, N of sewage plant |
| Vegetation  |                                  |                                   |   |
| Use: April 1 to October 30, inclusive                 |                                  |                                   |   |
| Application Depth: 0.5 meters                         |                                  |                                   |   |
| Open Water Fish and Shellfish Use:                    |                                  |                                   |   |
| January 1 to December 31, inclusive                   |                                  |                                   |   |
| Shellfish Harvest: See §M(2)(j) of<br>this regulation |                                  |                                   |   |

(c) Middle Patuxent River Oligohaline (PAXOH):

| Designated Uses Present in Segment                    | Latitude<br>(Decimal<br>Degrees) | Longitude<br>(Decimal<br>Degrees) | Limits   |
|---|----------------------------------|-----------------------------------|--|
| Migratory Spawning and Nursery                        | 38.542320                        | -76.678818                        | (1) Chalk Pt., eastern side                          |
| Use: February 1 to May 31, inclusive                  | 38.540684                        | -76.668045                        | (2) Gods Grace Pt. near end of Leitchs Wharf Rd.     |
| Shallow Water Submerged Aquatic                       | 38.700516                        | -76.694160                        | (3) 0.8 miles north of Jones Pt.                     |
| Vegetation  | 38.700325                        | -76.695824                        | (4) On marshy point 0.5 miles N of Hotschkins Branch |
| Use: April 1 to October 30, inclusive                 |                                  |                                   |  |
| Application Depth: 0.5 meters                         |                                  |                                   |  |
| Open Water Fish and Shellfish Use:                    |                                  |                                   |  |
| January 1 to December 31, inclusive                   |                                  |                                   |  |
| Shellfish Harvest: See §M(2)(j) of<br>this regulation |                                  |                                   |  |

(d) Lower Patuxent River Mesohaline 1 (PAXMH1):

| Designated Uses Present in Segment   | Latitude<br>(Decimal<br>Degrees) | Longitude<br>(Decimal<br>Degrees) | Limits          |
|--------------------------------------|----------------------------------|-----------------------------------|-----------------|
| Migratory Spawning and Nursery       | 38.304638                        | -76.421448                        | (1) Fishing Pt. |
| Use: February 1 to May 31, inclusive | 38.319176                        | -76.420990                        | (2) Drum Pt.    |

|  |           |            |   |
|--|-----------|------------|---|
| Shallow Water Submerged Aquatic Vegetation   | 38.322941 | -76.451630 | (3) Point of land S of Ship Pt. and E of Ma Leg I.    |
| Use: April 1 to October 30, inclusive  | 38.321041 | -76.451965 | (4) Eastern tip of Solomons                           |
| Application Depth: 2.0 meters  | 38.386593 | -76.498840 | (5) Mouth of St. Leonard Creek, east side             |
| Open Water Fish and Shellfish Use:   | 38.389153 | -76.506416 | (6) Petersons Pt.                                     |
| January 1 to December 31, inclusive  | 38.412220 | -76.542747 | (7) Island Creek mouth, east Side                     |
| Seasonal Deep Water Fish and Shellfish Use   | 38.411896 | -76.544487 | (8) Island Creek mouth, Broomes Island Side           |
| Upper pycnocline to lower pycnocline from June 1 to September 30, inclusive Shellfish Harvest: See §M(2)(j) of this regulation | 38.481140 | -76.647560 | (9) 0.64 miles south of the Sandy Pt. near Buzzard I. |
|  | 38.475594 | -76.662788 | (10) Trent Hall Pt.                                   |
|  | 38.342590 | -76.500587 | (11) Mouth of Cuckold Creek, north side               |
|  | 38.339634 | -76.499550 | (12) Mouth of Cuckold Creek, south side               |

(e) Lower Patuxent River Mesohaline 2 (PAXMH2):

| Designated Uses Present in Segment  | Latitude<br>(Decimal<br>Degrees) | Longitude<br>(Decimal<br>Degrees) | Limits  |
|---|----------------------------------|-----------------------------------|---|
| Refer to designated uses applicable to Lower Patuxent River Mesohaline 1 (PAXMH1) | 38.475594                        | -76.662788                        | (1) Trent Hall Pt.                                    |
| Shallow Water Application Depth: 0.5 meters                                       | 38.481140                        | -76.647560                        | (2) 0.64 miles south of the Sandy Pt. near Buzzard I. |
|   | 38.540684                        | -76.668045                        | (3) Gods Grace Pt. near end of Leitchs Wharf Rd.      |
|   | 38.542320                        | -76.678818                        | (4) Chalk Pt., eastern side                           |

(f) Lower Patuxent River Mesohaline 3 (PAXMH3):

| Designated Uses Present in Segment  | Latitude<br>(Decimal<br>Degrees) | Longitude<br>(Decimal<br>Degrees) | Limits   |
|---|----------------------------------|-----------------------------------|--|
| Refer to designated uses applicable to Lower Patuxent River Mesohaline 1 (PAXMH1) | 38.321041                        | -76.451965                        | (1) Eastern tip of Solomons                        |
| Shallow Water Application Depth: 0.5 meters                                       | 38.322941                        | -76.451630                        | (2) Point of land S of Ship Pt. and E of Ma Leg I. |

(g) Lower Patuxent River Mesohaline 4 (PAXMH4):

| Designated Uses Present in Segment  | Latitude<br>(Decimal<br>Degrees) | Longitude<br>(Decimal<br>Degrees) | Limits                                 |
|---|----------------------------------|-----------------------------------|--|
| Refer to designated uses applicable to Lower Patuxent River Mesohaline 1 (PAXMH1) | 38.339634                        | -76.499550                        | (1) Mouth of Cuckold Creek, south side |
| Shallow Water Application Depth: 0.5 meters                                       | 38.342590                        | -76.500587                        | (2) Mouth of Cuckold Creek, north side |

(h) Lower Patuxent River Mesohaline 5 (PAXMH5):

| Designated Uses Present in Segment  | Latitude<br>(Decimal<br>Degrees) | Longitude<br>(Decimal<br>Degrees) | Limits                                    |
|---|----------------------------------|-----------------------------------|---|
| Refer to designated uses applicable to Lower Patuxent River Mesohaline 1 (PAXMH1) | 38.389153                        | -76.506416                        | (1) Petersons Pt.                         |
| Shallow Water Application Depth:  | 38.386593                        | -76.498840                        | (2) Mouth of St. Leonard Creek, east side |
|   | 38.446831                        | -76.492088                        | (3) 0.25 miles downstream of Parran Road  |

0.5 meters

(i) Lower Patuxent River Mesohaline 6 (PAXMH6):

| Designated Uses Present in Segment  | Latitude<br>(Decimal<br>Degrees) | Longitude<br>(Decimal<br>Degrees) | Limits   |
|---|----------------------------------|-----------------------------------|--|
| Refer to designated uses applicable to Lower Patuxent River Mesohaline 1 (PAXMH1) | 38.411896                        | -76.544487                        | (1) Island Creek mouth, Broomes Island Side      |
| Shallow Water Application Depth: 0.5 meters                                       | 38.412220                        | -76.542747                        | (2) Island Creek mouth, east Side                |
|   | 38.433407                        | -76.540894                        | (3) 0.7 miles N of point where Marshall Rd. ends |

| Use Waters   | MCGS or<br>Latitude/<br>Longitude | Limits   |
|--|-----------------------------------|--|
| (j) Shellfish Harvest Subcategory. All estuarine portions of tributaries except Patuxent River and tributaries | 886.8/316.3                       | Above Ferry Landing  |
| (3) Use III: None  |                                   |  |
| (4) Use III-P: Patuxent River and tributaries  | 787.2/510.7                       | Above Triadelphia Reservoir  |
| (5) Use IV: None.  |                                   |  |
| (6) Use IV-P: Patuxent River and tributaries   | 813.2/476.8                       | Between Rocky Gorge Reservoir and Triadelphia Reservoir, and including Triadelphia Reservoir |

N. Sub-Basin 02-14-01: Lower Potomac River Area.

(1) Use I-P: Tilghman Lake Reservoir 817/260

(2) Use II:

(a) Lower Potomac River Tidal Fresh (POTTf):

| Designated Uses Present in Segment   | Latitude<br>(Decimal<br>Degrees) | Longitude<br>(Decimal<br>Degrees) | Limits  |
|--|----------------------------------|-----------------------------------|---|
| Migratory Spawning and Nursery Use: February 1 to May 31, inclusive              | 38.524168                        | -77.284804                        | (1) MLW midway between Shipping Pt. and Quantico Pier   |
| Shallow Water Submerged Aquatic Vegetation Use: April 1 to October 30, inclusive | 38.523266                        | -77.256630                        | (2) 1,000 feet SW of Moss Pt.                           |
| Application Depth: 2.0 meters  | 38.554722                        | -77.220268                        | (3) Stump Neck, E of radio towers & W of Roach Rd.      |
| NGZ present  | 38.566856                        | -77.209755                        | (4) Cornwallis Neck, 0.25 miles NW of Deep Pt.          |
| Open Water Fish and Shellfish Use: January 1 to December 31, inclusive           | 38.702038                        | -77.044693                        | (5) Mockley Pt., 500 feet west of tip                   |
| Shellfish Harvest: See §N(2)(f) of this regulation                               | 38.711002                        | -77.036736                        | (6) West of Fort Washington                             |
|  | 38.809449                        | -77.016184                        | (7) DC/MD State Line-northern shore of Oxon Creek       |
|  | 38.805753                        | -77.020951                        | (8) DC/MD State Line-southern shore of Oxon Creek       |
|  | 38.802464                        | -77.025166                        | (9) DC/MD State Line-near Fox Ferry Pt.                 |
|  | 38.791836                        | -77.038923                        | (10) DC/MD/VA State line, 200' east of Jones Point Park |
|  |                                  |                                   | (11) Piscataway Creek Tidal Fresh (PISTF)               |
|  |                                  |                                   | (i) West of Ft. Washington                              |
|  | 38.711002                        | -77.036736                        | (ii) Mockley Pt., 500 west of tip                       |
|  | 38.702038                        | -77.044693                        | (iii) Piscataway Cr. Park, N of sewage disposal plant   |
|  | 38.697979                        | -76.996788                        | (12) Mattawoman Creek Tidal Fresh (MATTF)               |
|  |                                  |                                   | (i) Cornwallis Neck, 0.25 miles NW of Deep Pt.          |
|  | 38.566856                        | -77.209755                        | (ii) Stump Neck, E of radio towers and W of Roach Rd.   |
|  | 38.554722                        | -77.220268                        | (iii) 2,300 downstream of Rts. 224/225 (edge of 7.5     |

38.591194 -77.124672 quad  
sheet)

Following the mean low water (MLW) line which defines the Maryland/Virginia State boundary to the first point described above, except for the following Virginia embayments where the boundary is the confluence of the mouth of the embayment with the Potomac River; Hunting Creek, Little Hunting Creek, Dogue Creek, Gunston Cove, the unnamed embayment in Mason Neck NWR, Occoquan Bay, Powells Creek, and Quantico Creek.

(b) Lower Potomac River Oligohaline 1 (POTOH1):

| Designated Uses Present in Segment  | Latitude<br>(Decimal<br>Degrees) | Longitude<br>(Decimal<br>Degrees) | Limits   |
|---|----------------------------------|-----------------------------------|--|
| Migratory Spawning and Nursery<br>Use: February 1 to May 31, inclusive    | 38.389680<br>38.407509           | -77.029268<br>-76.997322          | (1) MLW 1 mile SE of Mathias Pt., just north of 639<br>(2) 0.65 miles NW of the town of Popes Creek  |
| Shallow Water Submerged Aquatic<br>Vegetation                             | 38.444935<br>38.444565           | -77.016396<br>-77.040695          | (3) 1.5 miles SE of Chapel Pt., due E of Windmill Pt.<br>(4) Windmill Pt.  |
| Use: April 1 to October 30, inclusive                                     | 38.408894                        | -77.110886                        | (5) Blossom Pt.  |
| Application Depth: 2.0 meters   | 38.408745                        | -77.124855                        | (6) 0.15 miles SW of Benny Gray Pt.  |
| NGZ present   | 38.523266                        | -77.256630                        | (7) 1,000 feet SW of Moss Pt.  |
| Open Water Fish and Shellfish Use:<br>January 1 to December 31, inclusive | 38.524168                        | -77.284864                        | (8) MLW midway between Shipping Pt. and Quantico<br>Pier   |
| Shellfish Harvest: See §N(2)(f) of<br>this regulation                     |                                  |                                   | Following the Mean Low Water (MLW) line which<br>defines the Maryland/Virginia State boundary to the first<br>point described above, except for the following Virginia<br>embayments where the boundary is the confluence of the<br>mouth of the embayment with the Potomac River;<br>Unnamed embayment (Chopawamsic Island), Unnamed<br>embayment (near Arkendale Road), Aquia Creek, and<br>Potomac Creek. |

(c) Lower Potomac River Oligohaline 2 (POTOH2): Port Tobacco River

| Designated Uses Present in Segment  | Latitude<br>(Decimal<br>Degrees) | Longitude<br>(Decimal<br>Degrees) | Limits  |
|---|----------------------------------|-----------------------------------|---|
| Migratory Spawning and Nursery<br>Use: February 1 to May 31, inclusive    | 38.444565<br>38.444935           | -77.040695<br>-77.016396          | (1) Windmill Pt.<br>(2) 1.5 miles SE of Chapel Pt., due E of Windmill Pt. |
| Shallow Water Submerged Aquatic<br>Vegetation                             | 38.500164                        | -77.026306                        | (3) Port Tobacco Marina (edge of 7.5 foot quad sheet)                     |
| Use: April 1 to October 30, inclusive                                     |                                  |                                   |   |
| Application Depth: 1.0 meters   |                                  |                                   |   |
| NGZ present   |                                  |                                   |   |
| Open Water Fish and Shellfish Use:<br>January 1 to December 31, inclusive |                                  |                                   |   |
| Shellfish Harvest: See §N(2)(f) of<br>this regulation                     |                                  |                                   |   |

(d) Lower Potomac River Oligohaline 3 (POTOH3): Nanjemoy Creek

| Designated Uses Present in Segment | Latitude<br>(Decimal<br>Degrees) | Longitude<br>(Decimal<br>Degrees) | Limits                              |
|------------------------------------|----------------------------------|-----------------------------------|-------------------------------------|
| Migratory Spawning and Nursery     | 38.408745                        | -77.124855                        | (1) 0.15 miles SW of Benny Gray Pt. |

|  |           |            |   |
|--|-----------|------------|---|
| Use: February 1 to May 31, inclusive               | 38.408894 | -77.110886 | (2) Blossom Pt.                                     |
| Shallow Water Submerged Aquatic Vegetation         | 38.475391 | -77.130676 | (3) Wards Run, 0.25 miles upstream of Hill Top Fork |
| Use: April 1 to October 30, inclusive              |           |            |   |
| Application Depth: 1.0 meters                      |           |            |   |
| NGZ present  |           |            |   |
| Open Water Fish and Shellfish Use:                 |           |            |   |
| January 1 to December 31, inclusive                |           |            |   |
| Shellfish Harvest: See §N(2)(f) of this regulation |           |            |   |

(e) Lower Potomac River Mesohaline (POTMH):

| Designated Uses Present in Segment   | Latitude<br>(Decimal<br>Degrees) | Longitude<br>(Decimal<br>Degrees) | Limits  |
|--|----------------------------------|-----------------------------------|---|
| Migratory Spawning and Nursery   | 37.909777                        | -76.263700                        | (1) MLW East of Ophelia, 300 feet NW of light       |
| Use: February 1 to May 31, inclusive   | 38.038605                        | -76.321442                        | (2) Point Lookout                                   |
| Shallow Water Submerged Aquatic Vegetation   | 38.407509                        | -76.997322                        | (3) 0.65 miles NW of the town of Popes Creek        |
| Use: April 1 to October 30, inclusive  | 38.389680                        | -77.029268                        | (4) MLW 1 mile SE of Mathias Pt., just north of 639 |
| Application Depth: meters  |                                  |                                   |   |
| NGZ present  |                                  |                                   |   |
| Open Water Fish and Shellfish Use:   |                                  |                                   |   |
| January 1 to December 31, inclusive  |                                  |                                   |   |
| Seasonal Deep Water Fish and Shellfish Use Upper pycnocline to lower pycnocline from June 1 to September 30, inclusive |                                  |                                   |   |
| Seasonal Deep Channel Refuge Use   |                                  |                                   |   |
| Lower pycnocline boundary to bottom from from June 1 to September 30, inclusive  |                                  |                                   |   |
| Shellfish Harvest: See §N(2)(f) of this regulation   |                                  |                                   |   |

Following the mean low water (MLW) line which defines the Maryland/Virginia State boundary to the first point described above, except for the following Virginia embayments where the boundary is the confluence of the mouth of the embayment with the Potomac River: Upper Machodoc Creek, Rosier Creek, Monroc Bay, Mattox Creek, Popes Creek, Nomini Bay, Lower Machodoc Creek, unnamed embayment (south of Ragged Pt.), Gardner Creek, Jackson Creek, Bonum Creek, Yeocomico River, Coan River, Presley Creek, Hull Creek, and Hock Creek.

| Use Waters   | MCGS or<br>Latitude/<br>Longitude        | Limits                                 |
|--|--|--|
| (f) Shellfish Harvest Subcategory.   |  |  |
| All estuarine portions of tributaries except Potomac River and tributaries | From<br>723.8/211.8<br>to<br>710.9/205.3 | Above line from Smith Pt. to Simms Pt. |

(3) Use III: None.

(4) Use III-P: None.

(5) Use IV: None.

(6) Use IV-P: None.

O. Sub-Basin 02-14-02: Washington Metropolitan Area.

(1) Use I-P: Potomac River and all tributaries except those designated below as Use III, Use III-P, Use IV, or Use IV-P 766/401 From MD/DC line to Frederick/Montgomery County line

(2) Use II:

Anacostia River Tidal Fresh (ANATF)

| Designated Uses Present in Segment  | Latitude<br>(Decimal<br>Degrees)    | Longitude<br>(Decimal<br>Degrees)      | Limits   |
|---|-------------------------------------|--|--|
| Migratory Spawning and Nursery<br>Use: February 1 to May 31, inclusive<br>Shallow Water Submerged Aquatic<br>Vegetation Use: April 1 to October<br>30, inclusive<br>Application Depth: 0.5 meters<br>NGZ present<br>Open Water Fish and Shellfish Use:<br>January 1 to December 31, inclusive | 38.938805<br>38.918850<br>38.918261 | -76.942162<br>-76.941951<br>-76.941198 | (1) DC/MD State Line-eastern side of Rt. 50 bridge<br>(2) 100 feet below Bladensburg Road bridge<br>(3) DC/MD State Line-western shore |

| Use Waters | MCGS or<br>Latitude/<br>Longitude | Limits |
|------------|-----------------------------------|--------|
|------------|-----------------------------------|--------|

(3) Use III:

(a) Paint Branch and all tributaries 815.2/433.2 Above Capital Beltway (I-495)

(b) Rock Creek and all tributaries 764/475 Above Muncaster Mill Road

(c) North Branch Rock Creek and all tributaries 771.5/468 Above Muncaster Mill Road

(4) Use III-P:

(a) Little Seneca Creek and all tributaries From 704/477.4 to 716/491.3 From the stream's confluence with Bucklodge Branch to the Baltimore and Ohio railroad bridge (see Regulation .03-3E(1) of this chapter)

(b) Wildcat Branch and all tributaries 740.5/504

(5) Use IV:

(a) Rock Creek and all tributaries From 766.7/ 459.3 to 763.5/475 From Rt. 28 to Muncaster Mill Road

(b) Northwest Branch and all tributaries 809/413 Above East-West Highway (Rt. 410)

(6) Use IV-P: Little Seneca Creek and all tributaries 719.2/497.4

P. Sub-Basin 02-14-03: Middle Potomac River Area

(1) Use I-P: Potomac River and all tributaries except those designated below as Use III-P or Use IV-P 671/505.9 From Frederick/Montgomery County line to confluence with Shenandoah River

(2) Use II: None.

(3) Use III: Nonc.

(4) Use III-P:

|  |             |  |
|--|-------------|--|
| (a) Tuscarora Creek and all tributaries  | 694/592     |  |
| (b) Carroll Creek and all tributaries  | 678.5/579.5 | Above U.S. Route 15  |
| (c) Rocky Fountain Run and all tributaries   | 681/546     |  |
| (d) Fishing Creek and all tributaries  | 689.2/609.2 |  |
| (e) Hunting Creek and all tributaries  | 698.5/625.5 |  |
| (f) Owens Creek and all tributaries  | 705.9/635.9 |  |
| (g) Friends Creek and all tributaries  | 697.2/689.1 |  |
| (h) Catoctin Creek and all tributaries   | 640.6/589.8 | Above Alternate U.S. Route 40  |
| (i) Little Bennett Creek and all tributaries   | 711/527     | Above MD Rt. 355   |
| (j) Furnace Branch and all tributaries   | 675/514     |  |
| (k) Ballenger Creek and all tributaries  | 557/683     |  |
| (l) Bear Branch and all tributaries  | 685.2/531.9 | From confluence with Bennett Creek   |
| (5) Use IV: None.  |             |  |
| (6) Use IV-P:  |             |  |
| (a) Monocacy River and tributaries except those designated above as Use III-P                                  | 696/570     | Above U.S. Rt. 40  |
| (b) Catoctin Creek   | 640.6/538   | Mainstem only, below Alternate U.S. Rt. 40   |
| (c) Israel Creek and all tributaries   | 607/545     |  |
| Q. Sub-Basin 02-14-05: Upper Potomac River Area.   |             |  |
| (1) Use I-P: Potomac River and all Maryland tributaries except those designated below as Use III-P or Use IV-P | 543.3/594.4 | From the confluence of Shenandoah River to the confluence of the North and South Branches of the Potomac River |
| (2) Use II: None.  |             |  |
| (3) Use III: None.   |             |  |
| (4) Use III-P:   |             |  |
| (a) Town Creek tributaries   | 365/618.8   |  |
| (b) Beaver Creek and all tributaries   | 599.9/620.3 | In Antietam Creek Watershed  |
| (c) Marsh Run and all tributaries  | 605.7/662.1 | In Antietam Creek Watershed  |
| (d) Little Antietam Creek and all tributaries  | 620/674     |  |
| (e) Camp Spring Run and all tributaries  | 536/653     |  |
| (5) Use IV: None.  |             |  |
| (6) Use IV-P:  |             |  |
| (a) Town Creek   | 365/618.8   |  |
| (b) Fifteen Mile Creek and all tributaries   | 410.1/655   |  |
| (c) Sideling Hill Creek and all tributaries  | 424.5/660   |  |
| (d) Tonoloway Creek and all tributaries  | 474.8/679.8 |  |
| (e) Licking Creek and all tributaries  | 504/663.5   |  |
| (f) Conococheague Creek and all tributaries  | 566.3/645.4 |  |
| (g) Antietam Creek and all tributaries, except those   | 589.1/577.8 |  |

designated above as Use III-P

R. Sub-Basin 02-14-10: North Branch Potomac River Area.

(1) Use I-P:

|   |             |  |
|---|-------------|--|
| (a) North Branch Potomac River mainstem             | 352.3/621.1 | From the confluence of the North and South Branches of the Potomac River to the MD/WV State line |
| (b) Georges Creek mainstem                          | 222.8/607.4 | From confluence with N. Branch   |
| (c) Mill Run and its tributaries in Allegany County | 272.2/625.8 | From confluence with N. Branch (near Rawlings and Rawlings Heights)                              |
| (d) An unnamed tributary near Pinto                 | 281.7/636.5 | Confluence of the unnamed tributary with the North Branch of the Potomac River                   |

(2) Use II: None.

(3) Use III: None.

(4) Use III-P: All Maryland tributaries to the North Branch Potomac River except for:

(a) Those designated below as Use IV-P waters

|                                       |                                      |  |
|---------------------------------------|--------------------------------------|--|
| (b) Those designated above as Use I-P | From 352.3/621.1 to MD/WV State line | From confluence of North and South Branches of the Potomac River to the MD/WV state line |
|---------------------------------------|--------------------------------------|--|

(5) Use IV: None.

(6) Use IV-P:

|                  |             |               |
|------------------|-------------|---------------|
| (a) Wills Creek  | 303.3/665.5 | Mainstem only |
| (b) Evitts Creek | 310.2/656.8 | Mainstem only |

S. Sub-Basin 05-02-02: Youghiogheny River Area

(1) Use I-P:

|  |         |  |
|--|---------|--|
| (a) Broad Ford Run and all tributaries | 130/579 | Above Dam                                  |
| (b) Piney Creek and all tributaries    | 232/687 | Upstream from confluence with Church Creek |

(2) Use II: None.

(3) Use III:

|   |             |   |
|---|-------------|---|
| (a) South Branch, Casselman River                                       | 187.7/674.0 | Confluence of North and South Branches              |
| (b) Piney Creek and all tributaries in Maryland, including Church Creek | 223.9/693.9 | From MD/PA State line to confluence of Church Creek |

|   |             |                                |
|---|-------------|--------------------------------|
| (4) Use III-P Youghiogheny River and all tributaries joining the mainstem of the Youghiogheny River in Maryland | 126.8/696.2 | Upstream from MD/PA State line |
|---|-------------|--------------------------------|

|                             |             |   |
|-----------------------------|-------------|---|
| (5) Use IV: Casselman River | 205.5/694.8 | Mainstem only, confluence of South Branch and North Branch to Pennsylvania line |
|-----------------------------|-------------|---|

(6) Use IV-P: None.

T. Sub-Basin 02-05-03: Conewago Creek

(1) Use I-P: None.

(2) Use II: None.

(3) Use III: None.

(4) Use III-P: None.

(5) Use IV: None.

(6) Use IV-P: None.

U. Sub-Basin 02-13-99: Chesapeake Bay  
(Mainstem).

(1) Use I-P: None.

(2) Use II:

(a) Northern Chesapeake Bay (CB1TF1): See Sub-  
Basin 02-12-02: Lower Susquehanna River Area.

(b) Northern Chesapeake Bay (CB1TF2): See Sub-  
Basin 02-12-02: Lower Susquehanna River Area.

(c) Upper Chesapeake Bay (CB2OH): Upper  
Chesapeake Bay Oligohaline

| Designated Uses Present in Segment   | Latitude<br>(Decimal<br>Degrees) | Longitude<br>(Decimal<br>Degrees) | Limits   |
|--------------------------------------|----------------------------------|-----------------------------------|--|
| Migratory Spawning and Nursery       | 39.225143                        | -76.408775                        | (1) North Pt. SP, Black Marsh, 1200' NE of sm. creek     |
| Use: February 1 to May 31, inclusive | 39.207447                        | -76.246994                        | (2) 3,000 feet S of Rt. 21 (Tolchester Beach Rd.)        |
| Shallow Water Submerged Aquatic      | 39.372025                        | -76.101227                        | (3) 2,850 feet east of Howells Pt.                       |
| Vegetation Use: April 1 to October   | 39.389511                        | -76.040848                        | (4) Grove Pt.  |
| 30, inclusive                        | 39.401688                        | -76.035194                        | (5) North of Chesapeake Haven, Grove Neck                |
| Application Depth: 0.5 meters        | 39.420143                        | -76.123344                        | (6) 1,000 feet SW of Cherry Tree Pt., APG                |
| NGZ present                          | 39.351715                        | -76.232986                        | (7) North Pt. south of Fort Howard                       |
| Open Water Fish and Shellfish Use:   | 39.339172                        | -76.256592                        | (8) 800 feet upriver of Leges Pt.                        |
| January 1 to December 31, inclusive  | 39.303204                        | -76.296249                        | (9) Rickett Pt. at end of Ricketts Pt. Rd.               |
| Shellfish Harvest: See §U(2)(g) of   | 39.312767                        | -76.321190                        | (10) Carroll Pt.   |
| this regulation                      | 39.312862                        | -76.321449                        | (11) Carroll Pt.   |
|                                      | 39.316414                        | -76.331039                        | (12) Carroll I., midway betw. White Oak and Carroll Pts. |
|                                      | 39.309422                        | -76.342964                        | (13) Carroll Island, between Weir Pt. and Hawthorn Cove  |
|                                      | 39.286442                        | -76.384102                        | (14) North shore of Holly Beach                          |
|                                      | 39.248951                        | -76.410530                        | (15) Rocky Pt. Park, between Claybank and Cedar Pts.     |
|                                      | 39.231178                        | -76.408920                        | (16) Swan Pt., in line with 11th St.                     |

(d) Upper Central Chesapeake Bay (CB3MH): Upper Chesapeake Bay Mesohaline

| Designated Uses Present in Segment    | Latitude<br>(Decimal<br>Degrees) | Longitude<br>(Decimal<br>Degrees) | Limits  |
|---------------------------------------|----------------------------------|-----------------------------------|---|
| Migratory Spawning and Nursery        | 38.995991                        | -76.413185                        | (1) 500 feet SE of Moss Pond                                      |
| Use: February 1 to May 31, inclusive  | 38.989105                        | -76.330185                        | (2) 0.6 miles NE of where Rt. 50 W meets the Bay                  |
| Shallow Water Submerged Aquatic       | 39.016422                        | -76.296959                        | (3) Kent Island, 1,600 N of Grollman Rd.                          |
| Vegetation                            | 39.029720                        | -76.242516                        | (4) Wickes Beach, Eastern Neck Island                             |
| Use: April 1 to October 30, inclusive | 39.054563                        | -76.220229                        | (5) Northern tip of Eastern Neck Island, east of Route 445 Bridge |
| Application Depth: 0.5 meters         |                                  |                                   | (6) Southern End of Eastern Neck, east of Route 445 Bridge        |
| NGZ present                           | 39.056882                        | -76.220903                        | (7) 3,000 S of Rt. 21 (Tolchester Beach Rd.)                      |
| Open Water Fish and Shellfish Use:    | 39.207447                        | -76.246994                        | (8) North Pt. SP, Black Marsh, 1,200 feet NE of sm. creek         |
| January 1 to December 31, inclusive   | 39.225143                        | -76.408775                        | (9) North Pt. south of Fort Howard                                |
| Seasonal Deep Water Fish and          | 39.195377                        | -76.444511                        |   |
| Shellfish Use                         | 39.131855                        | -76.435081                        |   |
| Upper pycnocline to lower pycnocline  |                                  |                                   |   |

|  |                        |                          |   |
|--|------------------------|--------------------------|---|
| from June 1 to September 30,<br>inclusive                    | 39.074715<br>39.039185 | -76.422539<br>-76.414330 | (10) Bodkin Neck between Cedar and Bodkin Pts.<br>(11) East side Gibson I. across from Hapenny Way<br>(12) Between Beacon Hill and Tydings on the Bay |
| Seasonal Deep Channel Refuge Use                             |                        |                          |   |
| Lower pycnocline boundary to bottom                          |                        |                          |   |
| from June 1 to September 30,<br>inclusive Shellfish Harvest: |                        |                          |   |
| See§U(2)(g) of this regulation                               |                        |                          |   |

(e) Middle Central Chesapeake Bay (CB4MH):

| Designated Uses Present in Segment   | Latitude<br>(Decimal<br>Degrees) | Longitude<br>(Decimal<br>Degrees) | Limits  |
|--------------------------------------|----------------------------------|-----------------------------------|---|
| Shallow Water Submerged Aquatic      | 38.384819                        | -76.381432                        | (1) Cove Pt.  |
| Vegetation Use: April 1 to October   | 38.393951                        | -76.282532                        | (2) Meekins Neck, 800 feet north of Cattail Island      |
| 30, inclusive                        | 38.421051                        | -76.288589                        | (3) Meekins Neck, across channel from Point #4          |
| Application Depth: 2.0 meters.       | 38.421944                        | -76.288742                        | (4) Southern tip of Taylors Island                      |
| NGZ present                          | 38.487057                        | -76.331779                        | (5) West side of Oyster Cove, Taylors Island            |
| Open Water Fish and Shellfish Use:   | 38.526997                        | -76.333771                        | (6) 190 feet south of LCHMH Point #3                    |
| January 1 to December 31, inclusive  | 38.527523                        | -76.333801                        | (7) East edge of tidal flat N of existing James Island  |
| Seasonal Deep Water Fish and         | 38.672421                        | -76.340698                        | (8) 720 feet along shore NNW of Blackwalnut Pt.         |
| Shellfish Use                        | 38.719185                        | -76.334084                        | (9) South side Knapps Narrows, 275 feet west of Rt. 33  |
| Upper pycnocline to lower pycnocline | 38.719967                        | -76.333054                        | (10) North side Knapps Narrows, 150 feet west of Rt. 33 |
| from June 1 to September 30,         | 38.752529                        | -76.340332                        | (11) 1,500 feet NE of Green Marsh Pt.                   |
| inclusive                            | 38.836365                        | -76.369392                        | (12) Kent Pt.   |
| Seasonal Deep Channel Refuge Use.    | 38.989105                        | -76.330185                        | (13) 0.6 mile NE of where Rt. 50 W meets the Bay        |
| Lower pycnocline boundary to         | 38.995991                        | -76.413185                        | (14) 500 feet SE of Moss Pond                           |
| bottom from from June 1 to           | 38.976032                        | -76.452377                        | (15) Greenbury Pt., 800 feet up east side from the tip  |
| September 30, inclusive              | 38.946095                        | -76.455879                        | (16) Bay Ridge, near Bainbridge Ave                     |
| Shellfish Harvest: See §U(2)(g) of   | 38.907860                        | -76.466240                        | (17) Southern shore of Thomas Pt. Park                  |
| this regulation                      | 38.848892                        | -76.493805                        | (18) Felicity Cove, 250 feet north of Bay Rd.           |

(f) Lower Central Chesapeake Bay (CB5MH):

| Designated Uses Present in Segment  | Latitude<br>(Decimal<br>Degrees) | Longitude<br>(Decimal<br>Degrees) | Limits  |
|-------------------------------------|----------------------------------|-----------------------------------|---|
| Shallow Water Submerged Aquatic     | 37.889451                        | -76.236198                        | (1) Smith Pt.   |
| Vegetation Use: April 1 to October  | 37.885680                        | -76.229038                        | (2) MD/VA State Line-2500' SW of Smith Pt.            |
| 30, inclusive                       | 37.941404                        | -76.083908                        | (3) MD/VA State Line-2.25 miles west of Smith Gut Pt. |
| Application Depth: 2.0 meters       | 38.051910                        | -76.128838                        | (4) 7,000 feet N and 2,500 feet W of Fog Pt., Smith   |
| NGZ present                         | 38.231445                        | -76.135773                        | Island  |
| Open Water Fish and Shellfish Use:  | 38.248581                        | -76.153191                        | (5) Lower Hooper I. between Nancys and Creek Pts.     |
| January 1 to December 31, inclusive | 38.248642                        | -76.154419                        | (6) Lower Hooper Island, NE end of The Thorofare      |
| Seasonal Deep Water Fish and        | 38.295982                        | -76.204597                        | (7) Middle Hooper Island, NW end of The Thorofare     |
| Shellfish Use                       | 38.298965                        | -76.206718                        | (8) NW tip of Middle Hooper I. across from Ferry Pt.  |
| Upper pycnocline to lower           | 38.348228                        | -76.227264                        | (9) Ferry Pt.   |
| pycnocline from June 1 to September | 38.349953                        | -76.227982                        | (10) Drawbridge, northern Upper Hooper Island         |
| 30, inclusive                       | 38.393951                        | -76.282532                        | (11) Drawbridge, southern Meekins Neck                |
| Seasonal Deep Channel Refuge Use    | 38.384819                        | -76.381432                        | (12) Meekins Neck, 800 feet north of Cattail Island   |
| Lower pycnocline boundary to        | 38.319176                        | -76.420990                        | (13) Cove Pt.   |
| bottom from June 1 to September 30, | 38.304638                        | -76.421448                        | (14) Drum Pt.   |
| inclusive                           | 38.038605                        | -76.321442                        | (15) Fishing Pt.                                      |
| Shellfish Harvest: See §U(2)(g) of  | 37.909725                        | -76.263702                        | (16) Point Lookout                                    |
| this regulation                     |                                  |                                   | (17) East of Ophelia, 300 feet NW of light            |

|            |         |        |
|------------|---------|--------|
| Use Waters | MCGS or | Limits |
|------------|---------|--------|

Latitude/  
Longitude

(g) Shellfish Harvest Subcategory. All waters of the Chesapeake Bay Proper From the Susquahanna River mouth to the Virginia State line, including the tidal waters of the Chesapeake Bay bounded generally by the shoreline of the Bay and by "zero river mile" lines of estuaries and tributaries to the Bay, as designated by the Department of the Environment, and any peripheral waters designated as part of the Chesapeake Bay Proper by the Department of the Environment after consultation with the Tidewater Administration and the Forest, Park and Wildlife Service.

(3) Use III: None.

(4) Use III-P: None.

(5) Use IV: None.

(6) Use IV-P: None.

## **26.08.02.09 Ground Water Quality Standards.**

### **A. Discharge Approval Required.**

(1) Any discharge or disposal of waters or wastewaters into the underground waters of the State requires the approval of the Department. The approval, if granted, will contain limitations and requirements deemed necessary by the Department to protect the public health and welfare and to prevent pollution of ground and surface waters.

(2) A separate State discharge permit is required for:

(a) Wastewater effluents disposed of by means of spray or other land treatment or application systems;

(b) Ground water recharge systems;

(c) Discharge of leachate from a landfill to surface or ground waters except as specified in §A(3)(a); and

(d) Other subsurface disposal systems not specifically exempted in this regulation.

(Agency note: A separate State discharge permit is a discharge permit issued to an individual discharger or point source. A general permit is a State discharge permit issued to a class of dischargers pursuant to COMAR 26.08.04.08.)

(3) A separate State discharge permit is not required for:

(a) Landfills designed to achieve natural attenuation of leachate and permitted under Environment Article, §9-204 or 9-224, unless there is a discharge of leachate to surface waters of the State;

(b) Subsurface sewage disposal systems using soil absorption and permitted by the Department under Environment Article, Title 9, Subtitle 5, Annotated Code of Maryland, and COMAR 26.04.02;

(c) Sewage sludge composting or disposal operations permitted by the Department under Environment Article, Title 9, Subtitle 2, Part III, Annotated Code of Maryland, unless there is a direct discharge of wastewater to surface waters of the State; and

(d) Other subsurface disposal systems permitted by the Department under the provisions of COMAR 26.08.04.08.

(4) An Underground Injection Permit issued under COMAR 26.08.07 also constitutes a discharge permit under this regulation.

B. Aquifer Types Identified. For the purpose of controlling the pollution of the ground waters of the State, the Department of the Environment has identified three aquifer types and has established standards for ground water quality, as follows:

(1) Type I aquifer means an aquifer having a transmissivity greater than 1,000 gallons/day/foot and a permeability greater than 100 gallons/day/square foot. In addition, the total dissolved solids concentration for natural water in each aquifer shall be less than 500 milligrams/liter.

(2) Type II aquifer means an aquifer having either:

(a) A transmissivity greater than 10,000 gallons/day/foot, a permeability greater than 100 gallons/day/square foot and natural water with a total dissolved solids concentration of between 500 and 6,000 milligrams/liter; or

(b) A transmissivity between 1,000 and 10,000 gallons/day/foot, a permeability greater than 100 gallons/day/square foot and natural water with a total dissolved solids concentration of between 500 and 1,500 milligrams/liter.

(3) Type III aquifer means all aquifers other than Type I and Type II aquifers.

C. Discharge Quality Criteria. The following criteria apply outside of designated mixing zones (for the purpose of this section, the term "mixing zone" means an area or volume established by the Department for the mixing of ambient ground water with waters or wastewaters, or both, discharged as authorized by the Department):

(1) For Type I Aquifers. The characteristics or constituents of waters may not exceed primary or secondary standards for drinking water as adopted by the Department of the Environment in COMAR 26.04.01.

(2) For Type II Aquifers. The characteristics or constituents of waters after treatment by commercially available home water treatment or softening systems may not exceed primary or secondary standards for drinking water, except for total dissolved solids, as adopted by the Department of the Environment in COMAR 26.04.01 and §B(2) of this regulation.

(3) For Type III Aquifers. The characteristics or constituents of waters shall be such that they do not meet Type I or Type II quality criteria.

D. Guidelines for Discharge to Ground Waters.

(1) Land disposal of municipal or similar wastes shall follow the Department of the Environment's "Guidelines for Land Treatment of Municipal Wastewaters" MDR-WMA-001-07/03, which is incorporated by reference.

(2) Discharges to a ground water aquifer of specific classification may not result in pollution of an aquifer possessing higher quality criteria.

(3) Discharges to ground water may not result in degradation of ground waters below the criteria established in §C, outside a mixing zone specified in a State discharge permit, general permit, or other permit issued by the Department of the Environment.

(4) Dischargers or potential dischargers to ground waters may be required to monitor ground or surface waters, or both, in a manner and frequency and at locations specified by the Department of the Environment and to periodically submit the results of these activities.

(5) As provided in COMAR 26.13.05.18, the underground injection of hazardous wastes is prohibited.

## **26.08.02.10 Water Quality Certification.**

### **A. General.**

(1) The Federal Act prohibits the issuance of a federal permit or license to conduct any activity which may result in any discharge to navigable waters unless the applicant provides a certification from this State that the activity does not violate State water quality standards or limitations. This regulation establishes the procedures under which this certification will be issued.

(2) Discharges permitted by the Department under the National Pollutant Discharge Elimination System are certified by the Department.

### **B. Application for a Water Quality Certification.**

(1) An applicant for certification shall submit to the Department an application which includes:

(a) Name and address of the applicant.

(b) A description of the facility or activity.

(c) A description of any discharge which may result from the conduct of any activity including:

(i) Biological, chemical, thermal or other characteristics of the potential discharge; and

(ii) The location or locations at which any discharge may enter navigable waters.

(d) A description, if applicable, of the function and operation of any equipment or facilities to treat any discharge and the degree of treatment to be attained.

(e) The date on which the activity will begin or end, if known, and the date or dates on which any discharge may occur.

(f) A description, if applicable, of the methods proposed or employed to monitor the quality and characteristics of any discharge.

(g) Any other information the Department determines is necessary for evaluation of the impact of the activity on water quality. This may include quantitative analysis to demonstrate that the proposed activity may not violate State water quality standards.

(2) Discharges to Outstanding National Resource Waters (ONRW) will be certified only if:

(a) There is minimal adverse environmental impact;

(b) The discharges will not impair the water quality necessary to maintain the exceptional biological resource of the ONRW; and

(c) All practical actions have been taken to avoid impacts.

(3) By agreement with either federal or State agencies in order to facilitate the certification process, the Department may develop a joint application for a federal license or permit and State water quality certification.

### **C. Public Notice.**

(1) The Department shall provide public notice of each application for certification.

(2) The public notice shall:

(a) Give a brief description of the proposed activity;

(b) Provide instructions for submission of written comments; and

(c) Specify the expiration date for the opportunity to comment.

(3) The public notice may be given by:

(a) Joint notice with the federal permitting agency;

(b) Joint notice with other State agencies; or

(c) Selected mailings to State, county, or municipal authorities and other parties known to be interested in the matter.

D. Determination of Need for Public Hearing. The Department may hold a public hearing before issuing any water quality certification if:

(1) The Department determines the activity requiring certification is of broad, general interest; or

(2) The application for certification generated substantial public interest as indicated by written comments concerning water quality issues.

E. Issuance of Certification.

(1) Certification Issuance. If the Department determines the proposed activities will not cause a violation of applicable State water quality standards, the Department shall issue the water quality certification.

(2) Applicant Responsibilities.

(a) Issuance of water quality certification does not relieve the applicant of his responsibility to comply at all times with federal and State law.

(b) The applicant shall:

(i) Obtain the State water quality certification before the conduct of any activity requiring the federal permit;

(ii) Comply with all conditions of the State water quality certification to assure achievement of State water quality standards.

(3) Emergency Procedures. The Department:

(a) May issue an emergency water quality certification in those cases when the Department determines that an unacceptable threat to human life, water quality, or aquatic resources may occur or in those cases when a severe loss of property may result before a certification can be issued in accordance with procedures specified in § C;

(b) Shall issue a notice stating its action and the reasons for the action in accordance with the requirements of § C not later than 10 days following the issuance of the emergency certification;

(c) Shall incorporate in the emergency certification all standards and criteria normally applied to the specific type of project authorized by the emergency certification.

F. Procedures for Public Hearing.

(1) Notice of Public Hearing. The notice of public hearing shall:

(a) Include a brief description of the project;

(b) Include information concerning the date, time, and location of the public hearing;

(c) Include a brief description of the nature of the written comments received; and

(d) Be published in the Maryland Register at least 45 days before the hearing.

(2) Public Hearing.

(a) An interested person shall be given an opportunity to present evidence for or against the granting of water quality certification at the public hearing.

(b) Written comments shall be received by the Department by the date of the public hearing, unless the comment period is specifically extended at the hearing.

(3) Final Determination. After the closing date for receipt of written comments and after any public hearing the Department shall:

(a) Consider the testimony and other information presented;

(b) Prepare a written decision; and

(c) Publish the decision in the Maryland Register.

(4) Appeal of Final Decision.

(a) A person aggrieved by the Department's decision concerning a water quality certification may appeal the decision of the Department. The appeal shall:

(i) Be filed within 30 days of the publication of the final decision with the hearing office; and

(ii) Specify, in writing, the reason why the final determination should be reconsidered.

(b) A further appeal shall be in accordance with the applicable provisions of State Government Article, § 10-201 et seq., Annotated Code of Maryland.

G. General Certification.

(1) The Department may issue a general water quality certification for a class of activities requiring any federal license or permit.

(2) A general certification shall authorize all activities that meet the class description.

(3) In unique circumstances not considered in the issuance of the general certification, the Department may require issuance of an individual water quality certification for an activity that could be regulated under a general certification.

H. General Certification Issuance and Renewal.

(1) If the Department determines to adopt a general certification for a specific class of activities, the Department shall prepare a fact sheet:

(a) Describing the class of activities to be included; and

(b) Outlining the proposed conditions and limitations of the general certification.

(2) Notice of Intent to Adopt General Certification.

(a) The Department shall prepare a public notice which includes:

(i) A brief description of the general and special conditions which are proposed to be included in the general certification.

(ii) Provisions for examination by interested parties of the draft permit and other information related to the preliminary determination made by the Department.

(iii) A request for written comments concerning the general permit and a statement that a public hearing may be held if significant written public comment concerning the application is received by the Department.

(iv) Instructions for submission of written comments.

(v) The deadline specified for the submission of written comments. The deadline shall be at least 30 days from the date of publication of notice in the Maryland Register.

(b) The Department shall publish the notice in the Maryland Register. A copy of the notice shall be sent to:

(i) Local health officers;

(ii) Other interested State and local agencies; and

(iii) Any person requesting to be notified.

(3) Public Hearings.

(a) A public hearing shall be held and a notice of the public hearing shall be prepared and distributed if:

(i) There is significant public comment concerning the tentative determination to issue a general certification; or

(ii) The Department determines that a public hearing is necessary.

(b) The notice of public hearing shall be prepared and published in accordance with § F.

(c) The public hearing shall be conducted in accordance with the procedure outlined in § F of this regulation.

(4) Appeal of Final Decision. A person aggrieved by the Department's decision concerning a general water quality certification may appeal the decision of the Department. The appeal shall be in accordance with § F(4) of this regulation.

I. Applicant's Responsibility. General certification of any activity does not relieve the applicant of his responsibility to comply at all times with federal and State laws.

## **26.08.02.11 General Water Quality Certifications.**

A. General Water Quality Certification (GWQC) for Marsh Creation Projects.

(1) Scope of Activity.

(a) Definition. Marsh creation projects are defined as the vegetative stabilization of tidal shorelines and nontidal stream banks that are subject to erosion.

(b) Exception. The projects certified by this GWQC do not include marshes created for storm water management purposes.

(c) Marsh Creation. The creation of marshes includes the following activities:

(i) The placement of fill material such as earth or sand;

(ii) The construction of stone containment structures;

(iii) The grading of banks; and

(iv) The planting of *Spartina alterniflora*, *Spartina patens*, or other species acceptable to the Department.

(2) Certification. A federally permitted marsh creation project which meets the conditions of this GWQC is authorized under § 401 of the Clean Water Act (33 U.S.C. 1341 (1987)), provided that other applicable federal, State, and local laws and regulations are satisfied.

(3) Design Specifications.

(a) The stabilization activity shall be determined to be necessary for the prevention of erosion on tidal shorelines or nontidal stream banks.

(b) The placement of fill material authorized by this GWQC shall be limited to less than an average of 2 cubic yards of material per running foot placed within waters of the State.

(c) The project is a single and complete project.

(d) The applicant, in planning the project, shall comply with seasonal limitations applied to the construction phase for the protection of important aquatic species.

(4) Construction Specifications.

(a) Material may not be placed in excess of the minimum needed for erosion protection. All temporary fills shall be removed in their entirety on or before the completion of construction.

(b) Material may not be placed in any location or in any manner so as to impair surface or subsurface water flow into or out of any wetland area.

(c) Placement of fill material in existing vegetated wetlands shall be minimized to the greatest extent possible.

(d) Only clean material free of waste metal products, organic material, unsightly debris, toxic substances in toxic amounts, or any other deleterious substance shall be placed. The fill material to be placed shall include clean earth fill, sand, and stone only.

(e) Discharges in spawning areas during spawning seasons of important aquatic species shall be avoided.

(f) Placement of fill material may not restrict or impede the movement of aquatic species indigenous to the waters or cause the relocation of the water.

(g) Placement of fill material into breeding areas for migratory waterfowl shall be avoided.

(h) Heavy equipment working in wetlands shall be placed on mats, or suitably designed to prevent damage to the wetlands.

(5) Applicant's Responsibility.

(a) This GWQC does not relieve the applicant of the responsibility for obtaining any other approvals, licenses, or permits in accordance with federal and State laws or regulations, or local ordinances.

(b) This GWQC does not authorize the beginning of any proposed work in the absence of necessary approvals, licenses, or permits.

(c) The applicant is required to comply with all conditions of this general certification.

(6) Right of Inspection.

(a) Reliance on this GWQC by the applicant or his agent constitutes permission to inspect at any time the operations and records for any project conducted under the authority of this GWQC.

(b) Failure to comply with the conditions of this GWQC shall constitute reason for suspension or revocation of the applicant's use of this GWQC.

(c) Legal proceedings may be instituted against the alleged violator in accordance with Health-General Article, § 2-207, and State Government Article, § 10-201 et seq., Annotated Code of Maryland.

B. General Water Quality Certification (GWQC) for the Installation of Utility Lines.

(1) Scope of Activity.

(a) Definition. Utility lines are defined as any pipe, cable, or wire for the conveyance of public water or public sewer, natural gas, or the transmission of electrical, radio, or telecommunications service.

(b) Exceptions.

(i) Utility lines do not include intake and outfall structures or any pipe and pipeline used to transport any gaseous, liquid, or slurry substance except as associated with natural gas, water, and sewage lines.

(ii) Blasting, as a construction method, is not authorized by this GWQC.

(iii) Installation of gas pipe lines larger than 12 inches in diameter is not authorized by this GWQC.

(c) Installation. The installation of utility lines includes the following activities:

(i) The trenching, jetting, jackhammering, or plowing of wetlands or waterways;

(ii) The laying of a pipe, cable, or wire;

(iii) The backfilling of the excavated trench containing the pipe, cable, or wire;

(iv) The placement of riprap; and

(v) The vegetative stabilization of wetland areas which have been disturbed.

(2) Certification. A federally permitted utility line installation which meets the conditions of this GWQC is authorized under § 401 of the Clean Water Act (33 U.S.C. 1341 (1987)), provided that other applicable federal, State and local laws and regulations are satisfied.

(3) Design Specifications.

(a) The applicant, in planning the project, shall comply with seasonal limitations applied to the construction phase for the protection of important aquatic species.

(b) The post-construction bottom contours of waters and elevations of wetlands shall be the same as original contours and elevations.

(c) Disturbances of wetlands and waterways shall be avoided or minimized through the use of other practical alternatives such as designing the utility line in a proposed or existing roadway or using an existing right-of-way.

(4) Construction Specifications.

(a) Excess material shall be removed to an upland disposal area identified on the plan submitted for approval.

(b) Temporary fill materials shall be removed in their entirety on or before the completion of construction.

(c) Material may not be placed in any location or in any manner so as to impair surface or subsurface water flow into or out of any wetland area.

(d) If backfill material is obtained from sources other than the originally excavated material, it shall be clean material, free of waste metal products, organic material, unsightly debris, toxic substances in toxic amounts, or any other deleterious substance.

(e) Permanent work may not:

- (i) Restrict or impede the movement of aquatic species indigenous to the waters;
- (ii) Restrict or impede the passage of normal or expected high flows;
- (iii) Cause the relocation of the water; or
- (iv) Cause the impoundment of water.
- (f) To protect important aquatic species, in-stream work is prohibited as determined by the use designation of the stream, as follows:
  - (i) Use I and Use I-P Waters. In-stream work may not be conducted during the period March 1 through June 15, inclusive, during any year.
  - (ii) Use II Waters. In-stream work may not be conducted during the period June 1 through September 30 or December 16 through March 14, inclusive, during any year.
  - (iii) Use III and Use III-P Waters. In-stream work may not be conducted during the period October 1 through April 30, inclusive, during any year.
  - (iv) Use IV and Use IV-P Waters. In-stream work may not be conducted during the period March 1 through May 31, inclusive, during any year.
- (g) Disturbances in breeding areas for migratory waterfowl shall be avoided.
- (h) Heavy equipment working in wetlands shall be placed on mats or suitably designed to prevent damage to the wetland.
- (i) The applicant shall obtain and comply with a State or locally approved sediment control plan. The following apply:
  - (i) This plan shall be on site during all phases of construction;
  - (ii) Sediment bearing waters may not be discharged to the receiving waterway except as provided in the approved sediment control plan;
  - (iii) Discharges of sediment bearing water may not cause violations of the applicable State water quality standards.
- (5) Applicant's Responsibility.
  - (a) This GWQC does not relieve the applicant of the responsibility for obtaining any other approvals, licenses, or permits in accordance with federal and State law or regulation, or local ordinance.
  - (b) This GWQC does not authorize the beginning of any proposed work in the absence of necessary approvals, licenses, or permits.
  - (c) The applicant is required to comply with all conditions of the GWQC.
  - (d) The applicant is required to maintain all utility installations constructed under the authority of this GWQC. All utility maintenance is subject to the conditions of this GWQC.
- (6) Right of Inspection.
  - (a) Reliance on this GWQC by the applicant or his agent constitutes permission to inspect at any time the operations and records for any project conducted under the authority of this GWQC.
  - (b) Failure to comply with the conditions of this GWQC shall constitute reason for suspension or revocation of the applicant's use of this GWQC.
  - (c) Legal proceedings may be instituted against the alleged violator in accordance with Health-General Article, § 2-207, and State Government Article, § 10-201 et seq., Annotated Code of Maryland.

## **26.08.02.12 General Water Quality Certification (GWQC) for the Construction of Bulkheads.**

### **A. Scope of Activity.**

(1) Definition. "Bulkheads" means the structural stabilization of tidal and nontidal shorelines that are subject to erosion.

(2) Exceptions.

(a) Bulkheads authorized by this GWQC do not include structures which allow passage of a discharge pipe of any kind, such as storm water outfalls and those outfalls regulated under State discharge permits.

(b) Riprap revetments are not authorized by this GWQC.

(3) Bulkhead Construction. The construction of bulkheads includes the following activities:

(a) Driving of piles;

(b) Placement of a timber, aluminum, or steel vertical shoreline erosion control structure;

(c) Placement of a gabion wall;

(d) Placement of backfill behind the structure; and

(e) Placement of riprap at the channelward toe of the structure.

B. Certification. A federally permitted bulkhead project which meets the conditions of the GWQC is authorized under § 401 of the Federal Act provided that other applicable federal, State, and local laws and regulations are satisfied.

### **C. Design Specifications.**

(1) The stabilization activity shall be necessary for the prevention of erosion on tidal shorelines or nontidal stream banks.

(2) The placement of fill material authorized by this GWQC shall be limited to an average of 1 cubic yard of material per running foot placed within waters of the State.

(3) The project shall be a single and complete project.

(4) The project shall be limited to 500 feet in length.

### **D. Construction Specifications.**

(1) The vertical structure shall be constructed in its entirety before the discharge of backfill material.

(2) Material may not be placed in excess of the minimum needed for erosion protection.

(3) Excess material shall be removed to an upland site identified on the plan submitted for the federal permit.

(4) Temporary fills shall be removed in their entirety on or before the completion of construction.

(5) Material may not be placed in any location or in any manner so as to impair surface or subsurface water flow into or out of any wetland area.

(6) Placement of fill material in existing vegetated wetlands shall be minimized to the greatest extent possible. Bulkheads shall be placed landward of existing marsh vegetation. An area which contains more than 10 percent vegetated wetlands may not be filled.

(7) Where the vertical structure is inundated by 2 feet or greater depths of water at the mean high water tide, stone riprap shall be placed at the toe of the structure to protect the structure from wave and tide action and to prevent the disturbance and transport of sediment to waters of the State, which may occur as a result of the scouring actions of wave and tide. Gabion walls are exempted from this requirement.

(8) Only clean material free of waste metal products, organic material, unsightly debris, toxic material, or any other deleterious substance shall be placed as backfill.

(9) The applicant shall obtain and comply with a State or locally approved sediment control plan when disturbing or placing greater than 100 cubic yards of earth or backfill.

(10) Work in the waterway in spawning areas during spawning seasons of important aquatic species is prohibited.

(11) Placement of fill material may not restrict or impede the movement of aquatic species indigenous to the waters, or cause the relocation of the waters.

(12) Disturbances in breeding areas for migratory waterfowl shall be avoided.

(13) Heavy equipment working in wetlands shall be placed on mats, or suitably designed to prevent damage to the wetlands.

#### E. Applicant's Responsibility.

(1) This GWQC does not:

(a) Relieve the applicant of the responsibility for obtaining any other approvals, licenses, or permits in accordance with federal and State laws or regulation, or local ordinances;

(b) Authorize the beginning of any proposed work in the absence of necessary approvals, licenses, or permits.

(2) The applicant shall comply with all conditions of this general certification.

#### F. Right of Inspection and Department Enforcement.

(1) Reliance on this GWQC by the applicant or the applicant's agent constitutes permission to the Department to inspect at any time the operations and records for any project constructed under the authority of this GWQC.

(2) An activity is authorized by the GWQC as long as compliance with the conditions of the GWQC is maintained. Upon failure to comply with the conditions of this GWQC, the applicant is required to apply for an individual water quality certification.

(3) Legal proceedings may be instituted against an alleged violator in accordance with the provisions of the Environment Article and State Government Article, Annotated Code of Maryland.

### **26.08.02.13 General Water Quality Certification (GWQC) for the Placement of Riprap for Shore Protection.**

#### A. Scope of Activity.

(1) Definition. Riprap revetments are defined as:

(a) A facing of loose stone, brick, or masonry placed for the purpose of stabilizing tidal and nontidal shorelines that are subject to erosion; and

(b) Being constructed with materials of suitable size and weight to prevent their transport into the waterway.

(2) Exceptions.

(a) Riprap revetments authorized by the GWQC do not include structures which allow passage of a discharge pipe of any kind, such as storm water outfalls and those outfalls regulated under State discharge permits.

(b) Materials authorized for placement may not include asphalt, waste metal products, organic materials, unsightly debris, toxic material, or any other deleterious substance.

(c) Revetments may not be constructed to create fastland.

(3) Construction of Revetments. The construction of revetments includes the following activities:

(a) Excavation;

(b) Placement of filter cloth or other base;

(c) Stabilization of disturbed slopes by seeding or planting;

(d) Placement of loose or broken stone;

(e) Placement of aggregate or concrete mix;

(f) Placement of concrete and block;

(g) Pouring of concrete; and

(h) Placement of backfill.

B. Certification. A federally permitted placement of riprap which meets the conditions of the GWQC is authorized under § 401 of the Federal Act, provided that other applicable federal, State, and local laws and regulations are satisfied.

C. Design Specifications.

(1) The stabilization activity shall be necessary for the prevention of erosion on tidal or nontidal shorelines.

(2) The placement of fill material authorized by the GWQC shall be limited to the minimum needed for erosion protection.

(3) The project shall be a single and complete project.

D. Construction Specifications.

(1) Material may not be placed in excess of the minimum needed for erosion protection.

(2) Excess material shall be removed to an upland site identified on the plan submitted for the federal permit.

(3) Temporary fills shall be removed in their entirety on or before the completion of construction.

(4) Material may not be placed in any location or in any manner so as to impair surface water flow into or out of any wetland area.

(5) Placement of fill material in existing vegetated wetlands shall be minimized to the greatest extent possible. Riprap revetments shall be placed landward of existing marsh vegetation. An area which contains more than 10 percent vegetated wetlands may not be filled.

(6) The maximum slope of riprap revetments may not exceed 2:1.

(7) The maximum encroachment of riprap revetments may not extend more than 10 feet channelward of the mean high water shoreline.

(8) Riprap revetments shall be constructed on a base of filter cloth.

(9) The applicant shall obtain and comply with a State or locally approved sediment control plan when disturbing or placing greater than 100 cubic yards of earth or backfill.

(10) Work in the waterway in spawning areas during spawning seasons of important aquatic species is prohibited.

(11) Placement of fill material may not restrict or impede the movement of aquatic species indigenous to the waters or cause the relocation of the waters.

(12) Disturbances in breeding areas for migratory waterfowl shall be avoided.

(13) Heavy equipment working in wetlands shall be placed on mats, or suitably designed to prevent damage to the wetlands.

#### E. Applicant's Responsibility.

(1) This GWQC does not relieve the applicant of the responsibility for obtaining any other approvals, licenses, or permits in accordance with federal and State laws or regulation, or local ordinances.

(2) This GWQC does not authorize the beginning of any proposed work in the absence of necessary approvals, licenses, or permits.

(3) The applicant shall comply with all conditions of this general certification.

#### F. Right of Inspection and Department Enforcement.

(1) Reliance on this GWQC by the applicant or the applicant's agent constitutes permission to the Department to inspect at any time the operations and records for any project constructed under the authority of this GWQC.

(2) An activity is authorized by the GWQC as long as compliance with the conditions of the GWQC is maintained. Upon failure to comply with the conditions of this GWQC, the applicant is required to apply for an individual water quality certification.

(3) Legal proceedings may be instituted against the alleged violator in accordance with the provisions of the Environment Article and State Government Article, Annotated Code of Maryland.

### *Administrative History*

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COMAR 10.50.01.02, .04, and .03 recodified to COMAR 26.08.02.01, .03, and .04, respectively

Stream Segment Classification Tables codified as Regulation .02

Regulation .01 amended effective April 21, 1978 (5:8 Md. R. 593); July 11, 1980 (7:14 Md. R. 1348); December 3, 1984 (11:24 Md. R. 2070)

Regulation .01D amended effective May 24, 1982 (9:10 Md. R. 1022)

Regulation .01I amended effective June 6, 1983 (10:11 Md. R. 976); December 19, 1983 (10:25 Md. R. 2269)

Regulation .03 amended effective August 3, 1981 (8:15 Md. R. 1308)

Regulation .03A and D amended effective December 19, 1983 (10:25 Md. R. 2269)

Regulation .04B—E amended effective July 28, 1978 (5:15 Md. R. 1187)

Regulation .04 repealed effective July 11, 1980 (7:14 Md. R. 1348)

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Regulation .07A amended effective May 1, 1989 (16:8 Md. R. 911)

Regulation .07G amended effective October 30, 1989 (16:21 Md. R. 2263)

Regulation .08A amended effective May 1, 1989 (16:8 Md. R. 911)

Regulation .08O amended effective October 30, 1989 (16:21 Md. R. 2263)

Regulation .08Q amended effective May 1, 1989 (16:8 Md. R. 911)

Regulation .09D amended effective October 30, 1989 (16:21 Md. R. 2263)

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Regulation .02B amended effective August 29, 2005 (32:17 Md. R. 1440)

Regulation .02-1 adopted effective August 29, 2005 (32:17 Md. R. 1440)

Regulation .03A amended effective January 2, 1995 (21:26 Md. R. 2195)

Regulation .03B amended effective June 7, 1993 (20:11 Md. R. 917); July 5, 2004 (31:13 Md. R. 995)

Regulation .03-2 amended effective January 7, 1991 (17:26 Md. R. 2978); June 7, 1993 (20:11 Md. R. 917); March 25, 1996 (23:6 Md. R. 477); April 26, 2001 (28:2 Md. R. 101)

Regulation .03-2C amended effective July 5, 2004 (31:13 Md. R. 995)

Regulation .03-2G amended effective July 19, 2004 (31:14 Md. R. 1080)

Regulation .03-3 amended effective July 5, 2004 (31:13 Md. R. 995); August 29, 2005 (32:17 Md. R. 1440)

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Regulation .05D amended effective January 17, 1994 (21:1 Md. R. 34)

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Regulation .08 amended effective August 29, 2005 (32:17 Md. R. 1442)

Regulation .08H and J amended effective April 13, 1992 (19:7 Md. R. 747)

Regulation .08J amended effective January 17, 1994 (21:1 Md. R. 34); October 24, 1994 (21:21 Md. R. 1815); May 22, 1995 (22:10 Md. R. 708); July 5, 2004 (31:13 Md. R. 995)

Regulation .08N amended effective October 28, 1991 (18:21 Md. R. 2311); January 17, 1994 (21:1 Md. R. 34); October 24, 1994 (21:21 Md. R. 1815)

Regulation .08O amended effective January 17, 1994 (21:1 Md. R. 34); May 22, 1995 (22:10 Md. R. 708)

Regulation .08Q amended effective January 17, 1994 (21:1 Md. R. 34); May 22, 1995 (22:10 Md. R. 708)

Regulation .09A amended effective October 20, 1997 (24:21 Md. R. 1453)

Regulation .09D amended effective January 19, 2004 (31:1 Md. R. 32)

Regulation .10B amended effective February 5, 2001 (28:2 Md. R. 104)